Report of the

# Advisory Committee on Future Teacher Supply and Demand in Alberta

Alberta
LEARNING

For further information, contact:

Alberta Learning
Policy Sector
9th Floor, Commerce Place
10155 – 102 Street
Edmonton, Alberta T5J 4L5

Telephone: (780) 427-8501
or toll-free in Alberta by dialing 310-0000

Fax: (780) 422-0880

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Fax: (780) 422-0880

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March 25, 2003

Honourable Dr. Lyle Oberg
Minister,
Alberta Learning
204 Legislature Building
10800 – 107 Avenue
Edmonton, Alberta
T5K 2B6

Dear Dr. Oberg:

We are pleased to submit the attached *Report on Future Teacher Supply and Demand in Alberta.* The report indicates that Alberta is not predicted to have an overall shortage of teachers in the next ten years, but that particular subject areas and regions of the province are likely to experience continued or intensified hiring difficulties. We appreciate the opportunity to contribute to this study, and convey the recommendations for your consideration.

Yours truly,

Dr. Dave Beresh
College of Alberta School Superintendents

Terry Gunderson
Alberta School Boards Association

Dr. Bruce Clark
Faculty of Education, University of Calgary

Dr. Maryanne Doherty-Poirier
Faculty of Education, University of Alberta

Bill Stewart
Merit Contractors Association

Heidi Schreiner
Alberta Home and School Councils' Association

Brian Bickley
Syncrude Canada Ltd.

Nancy Stewart
Alberta Learning

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104-05370/

# 1.0 Introduction

## 1.1 Objectives

As part of its 2001-2004 Business Plan, Alberta Learning committed to working with learning stakeholders to develop strategies for recruiting and retaining teachers. Two committees were established to address supply and demand issues. The first committee identified promising practices that Alberta school jurisdictions could apply in the short-term and within the context of the existing education system to assist with recruiting and retaining teachers (see Appendix 1).

The Advisory Committee on Teacher Supply and Demand was established in July 2001 to address longer-term issues surrounding supply and demand. The goal of the committee was to determine the direction and magnitude of any future teacher supply and demand imbalances, and to identify potential medium- and long-term strategies to ensure that Alberta has the teachers needed over the next decade. The time frame covers five business planning cycles, extending to 2010.

The Advisory Committee on Teacher Supply and Demand's work was carried out in three key stages:

- developing estimates of overall future supply and demand,
- assessing future supply and demand in specific subjects and regions of the province, and
- identifying potential strategies based on the results.

This report summarizes the work of the committee, providing an overview of the empirical assessment of the future situation, and identifying potential strategies based on four strategic directions.

## 1.2 Context

Alberta currently does not have an overall shortage of teachers. Each year over the last decade, there have been approximately 1,300 more teachers graduating or moving to the province than retiring or moving away. Nevertheless, hiring difficulties have been reported in the subject areas of senior high mathematics, science, career and technology studies (CTS), and French. Hiring difficulties have also been reported in some rural areas. In addition, concern about attracting and retaining an adequate supply of teachers is a worldwide issue.

Over the longer-term, changing demographics will have an impact on Alberta's learning system. Consistent with the age structure of Canada, Alberta has an aging baby boom population. In 2001, approximately one-third of Alberta teachers were between 45 and 54 years of age, suggesting a wave of retirements within the decade. At the same time, after increasing throughout the 1990s, Alberta's and Canada's school-age (4-18) population has peaked, and is projected to steadily decline until about 2018, dropping by around 12 percent.

### 1.3 Advisory Committee on Teacher Supply and Demand Membership

The Advisory Committee on Teacher Supply and Demand was chaired by Alberta Learning, and composed of members from the College of School Superintendents (CASS), the Alberta School Boards Association (ASBA), the Alberta Teachers' Association (ATA), the Alberta Home and School Councils Association (AHSCA), faculties of education at Alberta universities, and the Apprenticeship and Industry Training (AIT) Board (see Appendix 2 for the detailed list).

## 2.0 Aggregate Supply and Demand for Alberta Teachers to 2010

In late 2001, Nichols Applied Management was contracted to develop provincial-level estimates of supply and demand (see Appendix 3 for the full report). A comprehensive forecasting model was developed that incorporated a wide range of factors that influence the supply of and demand for teachers in Alberta.

In estimating teacher supply, the model examined the number of teachers, the number of teachers of all ages leaving the profession, the number of new Alberta education graduates, and the number of teachers entering the profession from other provinces or countries or re-entering the profession. Key assumptions included that approximately 50 percent of new teachers are not in the profession after five years, and that 85 percent of recent education graduates enter the profession. In estimating demand, the model examined the school-age population, student participation rates, and the student-teacher ratio (full details on the forecast methodology and assumptions are contained in the full report in Appendix 3).

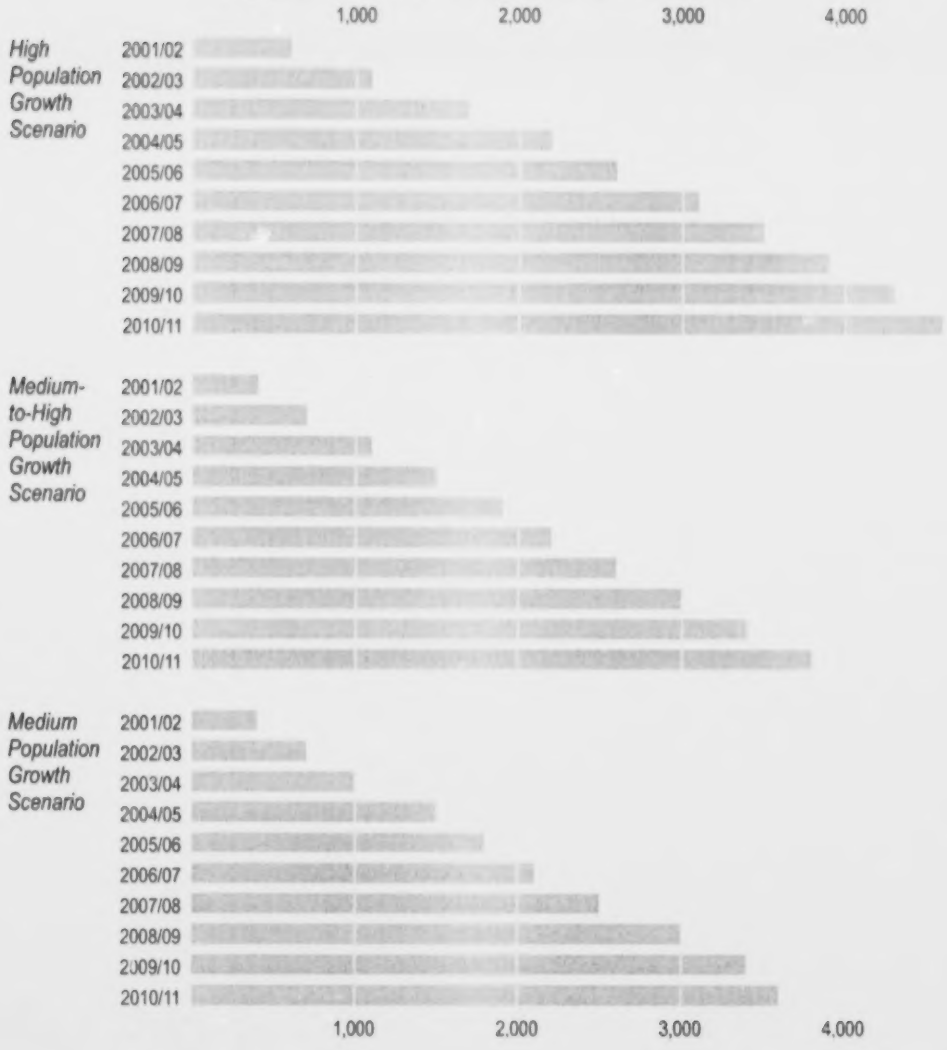
In order to produce a range of estimates of future teacher supply and demand, three scenarios were developed based on assumptions of medium, medium-to-high, and high population growth between 2001 and 2010. These Alberta-specific population forecasts, developed by Statistics Canada, allow for the fluctuating levels of in-migration that are common in Alberta.

The model predicted that the demand for teachers could drop between 4 percent and 9 percent during the forecast period, and that the supply of teachers could remain steady or grow by as much as 7 percent, depending on population growth rates. The combined supply and demand estimates produced three scenarios of overall supply and demand.

As seen in Figure 1 below, all scenarios show an increasing surplus of teachers to 2010. The medium-population growth scenario predicts a small surplus of approximately 400 teachers in 2001/2002 that increases to 3,600 teachers by 2010/2011. The medium-to-high population growth scenario predicts a small surplus of approximately 400 teachers in 2001/2002 that increases to 3,800 by 2010/2011. The high-population growth scenario predicts a surplus of 600 teachers in 2001/2002 that increases to 4,600 by 2010/2011.

**Figure 1**

**Three Scenarios of the Difference between Supply and Demand for Teachers in Alberta to 2010**




Source: Nichols Applied Management

The report concluded that, over the next ten years, a combination of two demographic factors (the declining school-age population and the increasing 19-25 year-old population) would limit the likelihood of an overall teacher shortage. These demographic factors are expected to more than offset the increasing number of teachers who will be retiring over the next decade.

However, the forecast is based on assumptions, and changes in the number of teachers moving to the province, the student-teacher ratio, the number of school-age children moving to the province through international immigration or inter-provincial migration, the retirement patterns of teachers, and the relative attractiveness of the teaching profession could affect the balance

between supply and demand. In addition, even though no teacher shortages are forecasted in any of the years between 2001 and 2010, in the early years of the forecast period, the labour market for teachers will likely continue to be tight since projected surpluses are relatively small.

## 2.1 Other Assessments of Aggregate Supply and Demand for Alberta Teachers

In addition to the Nichols Applied Management estimates, there are two other sources that assess future teacher supply and demand in Alberta. As indicated in the previous section, the Nichols Applied Management estimates predicted an overall surplus at the provincial level, ranging from 1,800 teachers to 2,600 teachers in 2005, and from 3,600 teachers to 4,600 teachers in 2010 (Figure 2).

In 2001, Statistics Canada developed projections of teacher supply and demand for Canada and the provinces extending to 2010 (see Appendix 4 for the full set of provincial and Canadian projections). On the supply side, the model included the current stock of teachers, new education graduates, retirements from the profession and net-migration into Alberta. On the demand side, the model included the school-age population, the participation rate and the pupil/educator ratio. The forecast has projections for two scenarios (100% of education graduates teach, and 75% of education graduates teach). As indicated in Figure 2, Alberta is predicted to have a growing overall surplus of teachers, reaching projected surpluses of approximately 2,700 teachers (75% scenario) or 6,300 teachers (100%) in 2005, and 8,000 teachers (75% scenario) or 14,000 teachers (100% scenario) in 2010.

In 2000, the Canadian Teachers' Federation surveyed Canadian school boards about perceived future hiring difficulties. The survey found that 80% of Alberta school superintendents expected some or a great deal of difficulty hiring teachers in 2005 (Figure 2). However, while surveys assessing perceptions of hiring difficulties provide important qualitative information about supply and demand, they are not the preferred method for quantifying shortages and surpluses. In such surveys, the nature of the study design does not allow for a surplus to be projected, and the magnitude of any shortage cannot be quantified.

**Figure 2**
**Three Assessments of Supply and Demand for Alberta Teachers to 2010**

| Forecast/Survey | Scenario | 2005 Surplus/Shortage | 2010 Surplus/Shortage |
|---|---|---|---|
| Nichols Applied Management Forecast (2001) | Medium Population Growth<br>Medium-to-High Population Growth<br>High Population Growth | +1,800<br>+1,900<br>+2,600 | +3,600<br>+3,800<br>+4,600 |
| Statistics Canada Forecast (2001) | 75% of Graduates Teach<br>100% of Graduates Teach | +2,700<br>+6,300 | +8,000<br>+14,000 |
| Canadian Teachers' Federation Survey (2000) | Not Applicable | 80% expect hiring difficulties | Not assessed |

## 3.0 Subject and Other Area and Regional Supply and Demand for Alberta Teachers to 2010

Even in a labour market with an adequate overall supply of teachers, shortages can still exist in particular subject areas or regions. The Advisory Committee developed a school superintendent survey to assess the potential for future supply and demand imbalances at the subject area and regional level for 2002, 2005 and 2010. The survey also assessed superintendents' perceptions of factors contributing to hiring difficulties and of the relative effectiveness of selected strategies in attracting and retaining teachers. As well, the survey provided the opportunity for superintendents to suggest strategies that government might consider implementing (see Appendix 5 for the full report).

The survey was mailed to all 62 school superintendents of the College of Alberta School Superintendents (CASS) in April 2002. Forty school jurisdictions (65%) responded to the survey, resulting in an accuracy level of +/- 10 percentage points 19 times out of 20. School jurisdictions were also categorized by their size (<5,000 students, 5,000 to 10,000 students, 10,000 to 20,000 students, 20,000+ students), setting (rural, small urban, major urban), and CASS region (north, north central, central, south central, south).

For 2002, potential supply and demand imbalances were assessed by asking superintendents about the number of teachers they were attempting to hire compared to the number of teachers they expected to be able to hire. For 2005 and 2010, potential supply and demand imbalances were assessed by asking about perceived hiring difficulties. Results were obtained for 33 teaching subject areas, as well as for other categories including principals, vice-principals, aboriginal teachers and librarians.

### 3.1 Subject and Other Area Results

The results of the survey of school superintendents revealed that hiring difficulties or shortages were anticipated in some areas and not in others. As indicated in Figure 3, in 2005 and 2010, hiring difficulties were expected to be most acute in the subject areas of Career and Technology Studies (CTS) technology education[1], senior high physics, senior high pure mathematics, senior high chemistry, senior high applied mathematics, CTS human ecology[2] and French immersion as well as in the category of principals.

However, it is noteworthy that no shortages or hiring difficulties were expected in many subject areas. For example, in 2002, no shortages or hiring difficulties were expected in 16 of the 33 subject areas assessed. In addition, in all three time periods (2002, 2005, and 2010), no difficulties were anticipated in hiring kindergarten teachers or elementary generalists.

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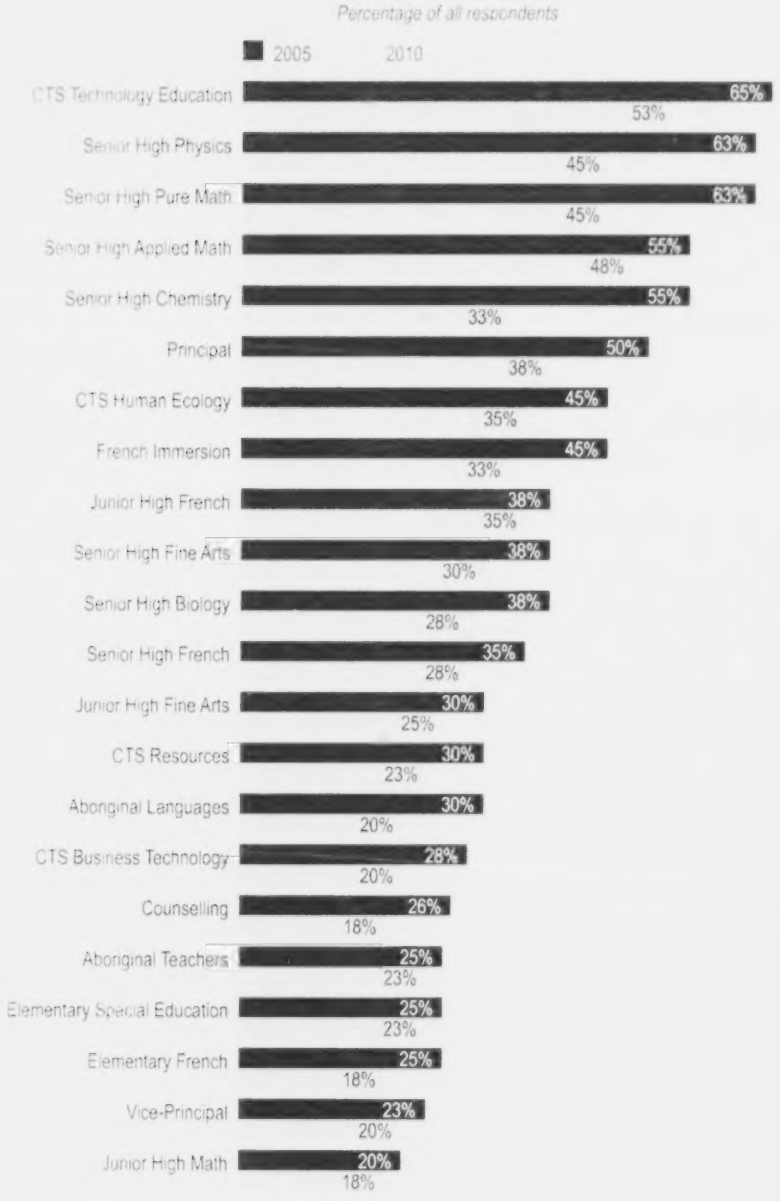
[1] Includes design studies, communication technology, construction technologies, electro-technologies, fabrication studies, logistics and mechanics.

[2] Includes career transitions, cosmetology studies, fashion, foods and community health.

## Figure 3

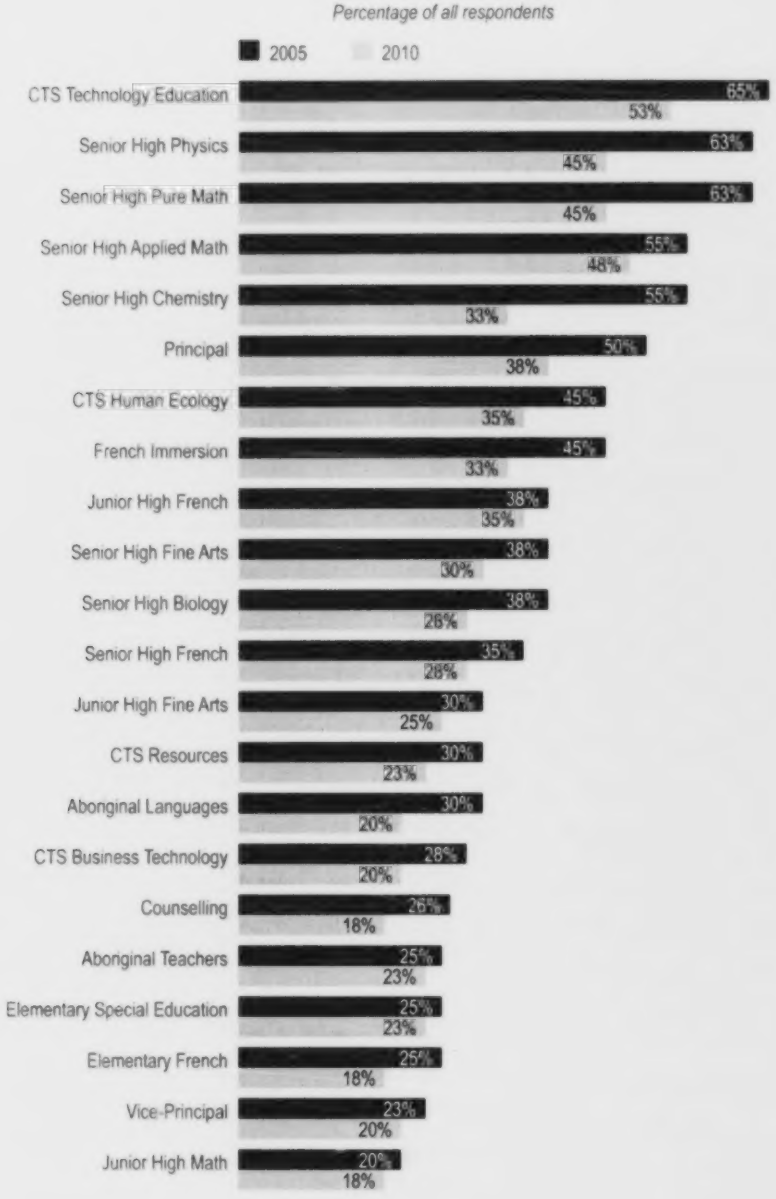
### Top Subject and Other Areas in which Hiring Difficulties are Anticipated in 2005 and 2010




Source: Nichols Applied Management

**Figure 3**

**Top Subject and Other Areas in which Hiring Difficulties are Anticipated in 2005 and 2010**




Source: Nichols Applied Management

## 3.2 Regional Results

Not all geographic areas of the province were equally likely to expect hiring difficulties. As shown in Figure 4, smaller (rural or small urban) jurisdictions with smaller student populations in the north or north central regions of the province were the most likely to anticipate hiring difficulties for each of the subject areas. While hiring difficulties appear to be primarily a phenomenon of these areas, some large urban jurisdictions expect difficulties in selected subject areas. For example, major urban areas are expecting hiring challenges in 2005 in the areas of French immersion and other second languages, junior high science and the technology education stream of Career and Technology Studies (CTS).

**Figure 4**
**Characteristics of Jurisdictions Anticipating Hiring Difficulties in 2005 by Teaching Category**

| Subject Area | Setting: R=Rural Su=Small urban Mu=Major Urban | Size: S=<5000 students M=5,000-20,000 L=>20,000 | CASS Region: N=North NC=North Central C=Central SC=South Central S=South |
|---|---|---|---|
| Elementary Special Education | Su | | N |
| Elementary Jr/Sr Education | R | M | SC |
| Elementary French | Su | S, M | C, SC, S |
| Jr High French | R, Su | S, M | N, NC, C, S |
| Sr High French | R | S | NC, C, S |
| French Immersion | R, Su, Mu | S, M, L | N, NC, C, SC |
| Aboriginal Language | R, Su | S | N, S |
| Other Second Languages | Mu | L | NC, C |
| Sr High Pure Math | R, Su | S, M | N, NC, C, SC, S |
| Sr High Applied Math | R, Su | S, M | N, NC, C, SC, S |
| Jr High Science | Mu | L | |
| Sr High Physics | R, Su | S, M | N, NC, C, SC, S |
| Sr High Chemistry | R, Su | S, M | N, NC, C, SC, S |
| Sr High Biology | R, Su | S, M | N, NC, C |
| Sr High General Science | Su | | NC, C |
| Jr High Fine Arts | R | M | NC, C, S |
| Sr High Fine Arts | R | S, M | NC, C, S |
| Counselling | R | M | NC, C |
| CTS Technology Education | R, Su, Mu | S, M, L | N, NC, C, S |
| CTS Resources | Su | M | N, C |
| CTS Business Technology | | | N, SC |
| CTS Human Ecology | R, Su | S, M, L | N, NC, C, S |
| Principal | R | S, M | N, NC, C, SC |
| Vice-Principal | | | NC |
| Aboriginal Teacher | Su | S, L | N |

1. At least 50% of jurisdictions with the characteristic that responded for a particular subject category indicated that they anticipated difficulties hiring.

Source: Nichols Applied Management

### 3.3 Factors Associated with Hiring Difficulties

Superintendents were asked to assess a list of six factors and indicate the extent to which these factors were contributing to hiring difficulties. As indicated in Figure 5 below, the three factors perceived to have the most significant influence on hiring difficulties were:

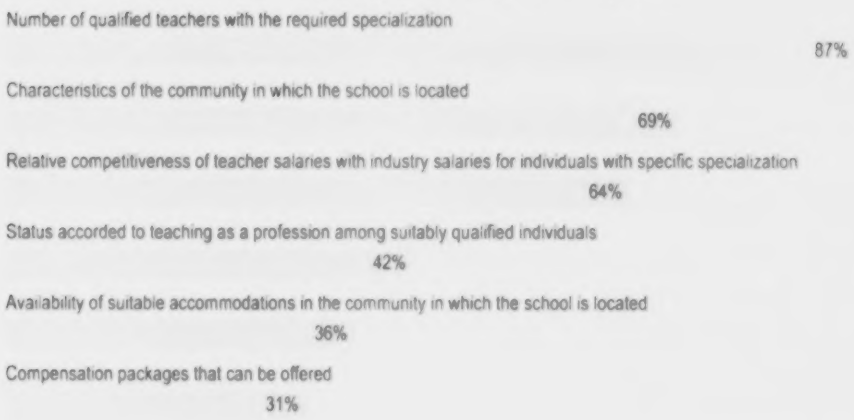
- the number of qualified teachers with the required specialization (87 percent viewed as a significant factor)
- the characteristics of the community in which the school is located (69 percent viewed as a significant factor)
- the relative competitiveness of teacher salaries with industry salaries for individuals with specific specialization (64 percent viewed as a significant factor).

The status accorded to teaching as a profession, the compensation packages that can be offered, and the availability of suitable accommodations in the community in which the school is located were viewed as much less significant factors. However, small, rural jurisdictions in the north or north central regions of the province were far more likely to perceive these as significant reasons for hiring difficulties.

**Figure 5**

**Potential Reasons for Hiring Difficulties in 2005 and 2010**

*Percentage rating the factor as significant or very significant*


Number of qualified teachers with the required specialization
87%
Characteristics of the community in which the school is located
69%
Relative competitiveness of teacher salaries with industry salaries for individuals with specific specialization
64%
Status accorded to teaching as a profession among suitably qualified individuals
42%
Availability of suitable accommodations in the community in which the school is located
36%
Compensation packages that can be offered
31%

Source: Nichols Applied Management

### 3.4 Attraction and Retention Strategies

Respondents were asked to assess the relative effectiveness of several strategies that school boards have previously reported using to attract and retain teachers. As seen in Figure 6, in terms of attracting teachers, the most effective strategies were perceived to be:

- recruiting on university campuses (94 percent viewed as effective)
- ensuring succession planning (94 percent viewed as effective)
- offering more attractive compensation packages (91 percent viewed as effective).

In terms of retaining teachers, the most effective strategies were perceived to be:

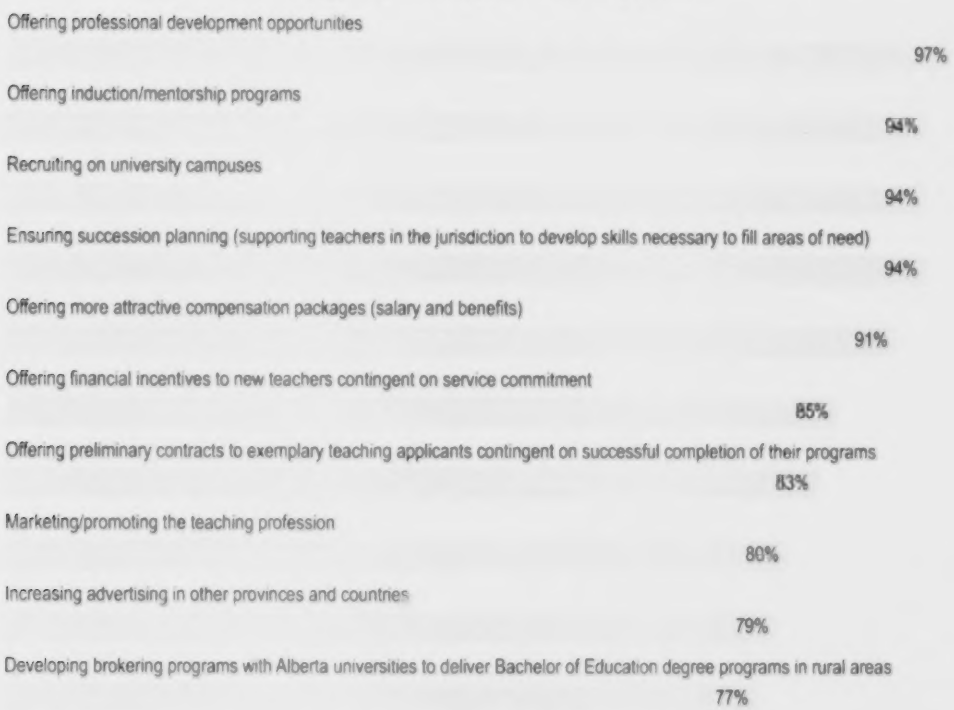
- offering professional development opportunities (97 percent viewed as effective)
- offering induction/mentorship programs (94 percent viewed as effective).

Respondents were also provided the opportunity to suggest strategies that government might consider implementing. In general, suggested strategies involved providing financial incentives (including differential pay in specialist areas, bursaries or financial support and tax incentives), encouraging qualified candidates to try teaching, and promoting teaching as a valuable and respected profession (for full details see the School Superintendents Survey Report in Appendix 5).

**Figure 6**

**Relative Effectiveness of Strategies in Attracting and Retaining Teachers**

*Percentage rating the strategy as effective or very effective*


Offering professional development opportunities
97%
Offering induction/mentorship programs
94%
Recruiting on university campuses
94%
Ensuring succession planning (supporting teachers in the jurisdiction to develop skills necessary to fill areas of need)
94%
Offering more attractive compensation packages (salary and benefits)
91%
Offering financial incentives to new teachers contingent on service commitment
85%
Offering preliminary contracts to exemplary teaching applicants contingent on successful completion of their programs
83%
Marketing/promoting the teaching profession
80%
Increasing advertising in other provinces and countries
79%
Developing brokering programs with Alberta universities to deliver Bachelor of Education degree programs in rural areas
77%

Source: Nichols Applied Management

## 4.0 Conclusion

Alberta is not expected to have an overall shortfall of teachers at the provincial level between 2001 and 2010. Nevertheless, during the early years of the forecast period, the labour market for teachers is expected to remain tight due to a projected small surplus of teacher supply[3].

Although the overall supply of teachers is expected to be adequate, the distribution of those teachers may contribute to continued or increased hiring difficulties in some subject areas and some areas of the province. At the subject area level, future hiring difficulties are anticipated in senior high mathematics, physics and chemistry, Career and Technology Studies (CTS), especially in the technology education stream, and French immersion. Hiring difficulties are also anticipated for school principals. At the regional level, future hiring difficulties are expected to be particularly acute in northern and north-central Alberta, especially in small, rural school jurisdictions.

## 5.0 Teacher Supply and Demand in Canada and the United States

### 5.1 Supply and Demand in Canada

The results on future provincial-level supply and demand are consistent with the findings from other Canadian and international studies. A 2001 Statistics Canada forecast (see Appendix 4), which assessed teacher supply and demand across Canada indicates that overall in Canada, a shortage of teachers is expected to exist from 1998 to 2004. Nevertheless, from 2005 to 2010, there will be a significant growing surplus of teachers, peaking at approximately 45,000 excess educators.

The forecast also predicts that the situation of the supply of and demand for teachers is not expected to be homogeneous across all regions of Canada. From 2002 onward, Alberta, along with Newfoundland, New Brunswick, Manitoba and Saskatchewan, is forecasted to have an overall surplus of teachers. Ontario, Quebec and Nova Scotia are forecasted to experience shortages for part of the forecast period. British Columbia, with its growing school-age population, is the only province forecasted to experience shortages throughout the decade.

The Alberta subject area results also generally mirror those across Canada. The Canadian Teachers' Federation's *CTF Survey of Canadian School Boards on Supply/Demand Issues* and the Canadian Alliance of Education and Training Organizations *The ABCs of Educator Demographics* both indicate that shortages or hiring difficulties have been pervasive across the country in mathematics, chemistry, physics, technology and vocational subject areas. The Canadian Teachers' Federation survey also notes that less than 10 percent of Canadian school districts reported shortages in physical education, elementary, pre-kindergarten and kindergarten, or social studies.

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[3] Subsequent to the research in this report being conducted, decisions in Alberta and across the country by governments, school boards and individual teachers may further increase teacher supply in Alberta.

## 5.2 Supply and Demand in the United States

A review of literature in the United States indicates that there will be a demand for 2.2 million new teachers over the next decade. Some studies have concluded that this could lead to a severe shortage of teachers, in view of a growing number of teacher retirements, and the attrition of teachers to opportunities in other occupations. However, on balance, most analyses suggest that there will be an adequate overall supply of teachers in the United States over the next decade.

Analyses prepared by both the National Center of Education Statistics and the U.S. Bureau of Labour Statistics indicate that the supply of teachers in the U.S. will likely exceed demand over the next decade. Currently, more than six million Americans hold at least a bachelor's degree in education. At least four million of these people are fully qualified to teach but are not teaching. In addition, every year in this decade, college and universities have been awarding more than 100,000 bachelor's degrees in education and the numbers continue to grow. Furthermore, despite attrition and retirements, a large number of teachers are returning to the teaching profession.

Nevertheless, due to the distribution of teachers, shortages are expected to persist in some states, regions and rural communities, and in specific subject areas of mathematics, physics, chemistry, bilingual education, computer science, and special education.

## 6.0 Policy Framework and Potential Strategies

According to the Advisory Committee's findings, Alberta is not predicted to have an overall shortage of teachers, but particular subject areas and regions of the province are likely to experience continued or intensified hiring difficulties.

Efforts to increase the supply of teachers in these areas will benefit most from a comprehensive policy framework. Maintaining optimal teacher numbers and types to sustain Alberta's learning system follows a continuum starting with attracting individuals into the profession, developing and certifying them once they are there, recruiting them once they are certified, and retaining them once they have been hired.

These four strategic approaches (attracting, developing, recruiting and retaining teachers) that form the policy framework and some key external, internal and personal factors that influence it are depicted in Figure 7 below.

**Figure 7**

**Factors Influencing the Attraction, Development, Recruitment and Retention of Teachers**

## 6.1 Recommended Strategies

Given that a sufficient overall supply of teachers is anticipated over the next ten years, the policy challenge is to ensure that all subject areas and all regions of the province have an adequate supply of teachers. Therefore, the overall goal of the strategies in the policy framework outlined below is to better allocate the future supply of teachers by increasing the supply in high demand subject areas and in rural and northern regions of the province through the four strategic approaches: 1) attracting individuals into the teaching profession, 2) developing, educating and certifying teachers, 3) recruiting teachers, and 4) retaining teachers. Schools, school boards, universities, business, industry and government all have roles to play in supporting these approaches.

### 1. Attracting Individuals Into the Profession

- Market and promote the teaching profession, focusing on high demand areas
- Create opportunities for teacher job shadowing for individuals currently not in the profession

### 2. Developing, Educating and Certifying Teachers

- Increase the number of post-secondary spaces in high demand areas
- Develop additional brokering programs with Alberta universities to deliver Bachelor of Education programs in rural areas
- Encourage greater involvement of school board staff in Bachelor of Education programs
- Consider creating more flexible certification processes
- Improve the recognition of prior learning used toward Bachelor of Education degrees
- Encourage more flexibility in Bachelor of Education programs that allow students to change subject area specialties more easily
- Allow better recognition of foreign credentials
- Improve alternate program delivery options (including technology with appropriate student-teacher ratios) in rural areas

### 3. Recruiting Teachers

- Create a province-wide bulletin board of teaching vacancies
- Introduce financial incentives (including forgiving student loans) for new teachers contingent on service commitment
- Increase advertising in high demand areas in other provinces, territories and countries
- Work with industry to help recruit prospective teachers, especially in high demand areas
- Offer preliminary contracts to exemplary teaching applicants contingent on successful completion of their programs
- Create bursaries or financial support for students
- Consider developing tax incentives for locating in rural areas
- Remunerate teachers in high cost rural areas according to the cost of living

### 4. Retaining Teachers

- Ensure succession planning is in place (supporting teachers in the jurisdiction to develop skills necessary to fill areas of need)
- Offer induction/mentorship programs that support new teachers
- Offer professional development opportunities
- Ensure compensation packages are competitive and attractive.

## Appendix 1
## Promising Practices in Teacher Recruitment and Retention

# Promising Practices in Teacher Recruitment and Retention

# Promising Practices in Teacher Recruitment And Retention

## *Teacher Supply and Demand Committee I*

**Background**

*As the first of a two-part initiative, the Teacher Supply and Demand Committee I was responsible for identifying promising current and new practices that school authorities could apply in the short term and within the context of the existing education system to address teacher supply matters.*

*The second phase of this initiative will identify strategies or options that partners can pursue over the long term. A committee of stakeholders supported by the Information and Strategic Services Division (ISS), Alberta Learning, will lead this phase.*

*Jurisdictions in Alberta, in a number of recent surveys, have reported difficulties in recruiting teachers for Mathematics and Sciences, Career and Technology Studies, and French. Many jurisdictions also alluded to a steadily diminishing pool of substitute teachers. Jurisdictions serving Aboriginal communities have reported an insufficient number of teachers of Aboriginal background. Rural, and also some suburban, jurisdiction superintendents have also reported concerns about their ability to attract quality applications for school-based administrative positions.*

**Composition**

*Committee I was comprised of representatives from the following groups:*

- *Alberta Learning*
- *College of Alberta School Superintendents*
- *Alberta Teachers' Association*
- *Alberta Home and School Councils' Association*
- *Alberta School Boards Association*
- *Association of School Business Officials of Alberta*
- *Faculties of Education (represented by a faculty member from the University of Calgary).*

### Five Steps to Improving Your Teacher Recruitment Efforts

Based on promising practices literature, the following steps are a potential framework school authorities may consider when developing a teacher recruitment and retention plan.

#### Step One

Assemble a diverse planning team or committee to help collect data, evaluate your jurisdiction's needs, identify resources, and recommend a list of desired changes in policies and practices. The team should be comprised of teachers, parents, administrators, teacher association members, curriculum specialists, principals and community leaders.

#### Step Two

Assign members of the team to collect as much data as possible in order to support a case for intensifying your teacher recruitment efforts. Questions you should address include:

- How many teachers do you estimate you will need and in which grades and subject areas (in the next year, the next 5 years, the next 10 years)?
- How many teachers are expected to retire in your jurisdiction? When? Will they need to be replaced?
- Will your area experience a student population growth or decline?
- Is there a need to diversify your teaching force?
- Is attrition of beginning teachers one of your jurisdiction's greatest concerns?

#### Step Three

Assess whether or not you can still rely on your traditional sources of teachers and identify new pools of teacher candidates. Information you will need includes:

- How many individuals graduate each year from local universities? How many are enrolled in teacher preparation programs? What fields are they in?
- Will traditional pools of teachers meet your future needs?

- Will you be able to attract qualified teachers, and teachers for high-need subject areas?
- How many paraprofessionals or teacher aides does the jurisdiction currently employ?
- Are there mid-career adults in the area who would welcome an opportunity to become fully licensed teachers?
- Do your senior high schools have programs to interest young students in teaching careers?

**STEP FOUR**

Make preliminary decisions about where you will start and what kinds of changes are needed.

- Will you focus on filling a small number of empty slots or remedying a chronic teacher shortage—or both?
- Will your plan include short-term, intermediate and long-term goals?
- Is there enough time to "grow your own" teachers through succession planning?
- Which "best practices" and effective program models do you want to borrow?

**STEP FIVE**

Evaluate your readiness to significantly improve your teacher recruitment and retention efforts. Take stock of your current programs and resources in order to determine which programs to keep, enhance or initiate.

**Long-term goals** might involve establishing programs to encourage senior high school students, paraprofessionals, or mid-career individuals to go into teaching.

**Intermediate goals** might involve setting year-end targets; e.g., putting systems into place to increase the number of applicants by a certain number for the upcoming year.

**Short-term goals** might involve immediate actions that remove barriers preventing teachers from being hired in your district; e.g., shortening the response time to candidates' applications or updating marketing materials.

(Adapted from *A Guide to Today's Teacher Recruitment Challenges 2000*. Recruiting New Teachers, Inc. Belmont, MA.)

## *The Demand for Teachers*

*Owing to Alberta's vibrant economy, the province benefits from the in-migration of teachers from other Canadian provinces as well as from elsewhere in the world. As a result, aggregate teacher supply exceeds demand and likely will continue to do so until sometime between 2003 and 2005 when supply and demand may equalize.*

*To get a current picture of teacher supply challenges facing Alberta schools, the College of Alberta School Superintendents surveyed their membership by e-mail in February 2001. The survey asked which grades and subject areas presented the greatest recruitment difficulties and which presented no difficulty.*

*The results confirm the findings of earlier surveys. Of the sixty-five jurisdictions surveyed, thirty-five responded for a 54% response rate. At the senior high school level, teachers of Sciences, Mathematics, and Career and Technology Studies are in the greatest demand. Teachers of French and Special Education are also in relatively short supply (44% and 34% respectively). Eighty-eight percent of the respondents reported no difficulty recruiting Elementary Generalists.*

***Percentage of respondents reporting difficulty recruiting by subject area***

| | |
|---|---|
| *Senior High Sciences* | *94* |
| *Senior High Mathematics* | *88* |
| *Career and Technology Studies* | *84* |
| *Secondary French* | *44* |
| *Special Education* | *34* |
| *Music* | *25* |
| *Elementary French* | *22* |
| *Guidance Counselling* | *19* |
| *Junior High Mathematics* | *16* |
| *Junior High Science* | *13* |
| *Fine Arts (Art, Drama)* | *9* |

### *How Alberta School Authorities Recruit Teachers*

*Recruitment methods are many and varied and often differ with circumstances within boards. The common threads in responses to the College of Alberta School Superintendents survey were starting recruitment efforts sooner and marketing one's jurisdiction. The list below summarizes what Alberta jurisdictions are currently doing to recruit teachers.*

- *Advertising (national, local, Web site)*
- *Active Recruiting*
  - *Attending Career/Job Fairs*
  - *Recruiting on University campuses*
  - *Recruiting further afield (Atlantic Canada, Eastern provinces)*
  - *Hiring teachers earlier*
  - *Centralizing hiring through Division Office*
  - *Maintaining ongoing database of prospective staff*
  - *Entering preliminary contracts with exemplary applicants contingent on satisfactory completion of program*
- *Marketing Community and School Jurisdictions*
- *Financial Initiatives*
  - *Attractive compensation package (salary and benefits)*
  - *Grant for moving expenses*
  - *Subsidized housing*
  - *Working with local banks to provide assistance to first-time home buyers*
  - *Grant contingent on service commitment in penultimate year of teacher preparation program*
  - *Bursaries contingent on service commitment*
  - *Funding extended practicum students in Faculties of Education*
- *Mentorship and Orientation Program*
- *Succession Planning—supporting members within the jurisdiction to develop the skills necessary to fill areas of need*

## How To Attract Prospective Teachers

Regardless of the vehicle you use to communicate— a Web site, brochure, flyer or letter— certain principles improve the readability and attractiveness of your materials and messages. Before developing your communications materials, you need to decide what your message is going to be and make sure it focuses on your aims. It is important to have a clear understanding of what you want to accomplish before you start since each audience will be persuaded by different messages.

- **Research the views of your audience**

Determine what your jurisdiction has to offer candidates in relation to the "Four C's"— compensation, community (culture, core values), colleagues and curriculum—and create messages that factor in the needs of different audiences.

- **Collect real-life examples**

People are more likely to respond to messages that use real-life situations with which they can identify. Interview new teachers and find out what attracted them to your school authority. Use this information— possibly including quotes and short profiles—to demonstrate that there are individuals "like them" enjoying their work in your jurisdiction.

- **Communicate excitement**

Whether or not you make a substantial investment in marketing materials, you should communicate excitement about opportunities for professional growth in your school authority. Involve practicing teachers in recruitment teams that visit job fairs.

- **Make your materials appealing**

The quality of materials can reflect the calibre of an organization. It is important to:

1) make sure your information is written in a brief and concise format

2) allow ample white space to increase readability, and

3) use richly textured paper to help the colours stand out.

### *Information that Should Be on Your Web Site*

*In addition to providing links to other helpful Web sites, your site can provide teacher candidates with a wealth of information about:*

- *a mission statement*
- *district goals*
- *the Local School Council*
- *noteworthy achievements*
- *budget*
- *cultural attractions in the community*
- *application information*
- *teacher recruitment procedures*
- *current job openings*
- *personnel contact information*
- *job benefits*
- *salary scale and range*
- *teacher certification*
- *teacher support programs/induction services*
- *departments and services*
- *procedures pertaining to leaves of absence, teacher evaluation, etc.*
- *individual schools*
- *calendars*
- *enrollment*
- *class size*
- *staff profiles*
- *special programs*
- *library services*
- *photographs of students and teachers working together.*

## How to Use the Internet to Improve Teacher Recruitment

School authorities today are finding that the Internet is an invaluable teacher recruitment tool. Well-executed Web pages devoted to employment opportunities, as part of your district's Web site, can provide essential information to prospective candidates.

### Basic Tips for Creating a Web Site

Whether you develop a home page on your own or hire a professional, these are some basic things to keep in mind when creating Web pages:

- Think about the World Wide Web as another vehicle for distribution.
- Bells and whistles are fun and exciting, but not everyone has the latest technology for accessing these items. Keep your page simple.
- Be sure to display the date when your page was last revised to help users determine the currency of the information.
- Put easy-to-read content on every page.
- Make information easy to find.
- Make it easy to contact your authority.
- Use upper and lower case, rather than all caps, to increase readability.
- Design your first page to look like a magazine cover.
- Limit graphics to minimize downloading time.
- Update your site on a regular basis.
- Start small and add pages later on.
- Provide the URL for your Web site on paper documents.

## How to Retain Teachers

### *How Alberta School Authorities Retain Teachers*

*While it is important to attract individuals to the teaching profession, it is equally important to develop strategies to keep those teachers you have. The list below summarizes what Alberta school authorities are doing to retain teachers.*

- *Professional Development opportunities*
- *Attractive compensation package*
- *Mentorship*
- *Nurturing positive staff relations and morale*
  - *Staff recognition programs*
  - *Being compassionate and supportive of staff in crisis*
  - *Valuing teachers-stressing sense of family*
  - *Wellness initiatives*
- *Teacher preparation time*
- *Assigning teachers to areas of expertise*
- *Focusing on quality learning and teaching*
- *Providing state-of-the-art technology and teaching resources*
- *Having and maintaining modern facilities*
- *Pedagogical support*
- *Vertical teams (job-alike groups for sharing resources)*
- *Providing continuous contracts*
- *Educational leave*
- *Deferred salary leave*
- *Temporary assignments after retirement*
- *Bursaries*
- *Revisiting Early Retirement Incentive Plan*
- *Subsidized housing*
- *Working with local colleges and universities to broker programs to prepare teachers*
- *Job sharing*
- *Long service allowances*
- *Sabbatical support*

It is estimated that 30–50% of teachers leave their jobs within the first five years. Many feel that the key to retaining staff lies in support for new teachers and the process whereby they are introduced to teaching life—a good induction program. From the Latin "inducere," meaning to lead in, induction suggests that teachers will be led into, rather than thrown into, teaching.

**What is induction?**

In many professions, medicine and law for example, novices receive extended training, development, and mentoring before taking on the responsibilities of full professionals. In professional sports, farm teams and junior leagues provide the same process. Yet, novice teachers are too often left to fend for themselves, with little or no initiation into the profession.

While an increasing number of school authorities now offer induction programs to orient, support, assist, and assess new teachers in their first years, these induction programs can take many forms. Unfortunately, many programs are limited to short orientation sessions. Developing full mentoring relationships, offering staff development courses and workshops, or multi-year programs, have all proven far more effective in supporting new teachers.

**Why are induction programs needed?**

The first years of teaching can be overwhelming. Even experienced teachers in new assignments or in new communities can be sorely tested. This "reality shock" can take a terrible toll on teacher morale, make school authority recruitment more difficult and negatively impact student achievement.

A good induction program can make a tremendous difference to the professional growth of teachers and in the learning experiences students are provided. Quite simply, strong support systems for novice teachers can mean the difference between retaining teachers and having to recruit new ones.

## *Implementing a School-based Orientation/Induction Program*
## *A Sample Plan*

Adapted, courtesy of the Peel Board of Education, from *Teacher Recruitment and Retention: How Canadian School Boards Attract Teachers*, 1992. A Report from the Canadian Education Association, Toronto, ON.

The Peel Board of Education's orientation program for new teachers is coordinated into three levels.

**Regional**

New teachers are invited to participate in two orientation events. The initial program welcomes new staff to the board. Trustees and the director join other central office staff to help make new teachers feel a part of the organization. The second event provides an introduction to "Teaching and Learning in Peel." In addition to hearing a brief description of the support provided by the Program and Special Services Departments, new staff can discuss programs and curriculum with resource and classroom teachers.

**Field Office**

In each field office, a committee coordinates an orientation program for new teachers that focuses on broadening both their skill and knowledge base. This program uses the expertise of resource teachers and other consultative staff to address classroom management, special services support, student evaluation and reporting to parents. The program begins in the summer months and is continued throughout the school year.

**School**

The orientation at the school is the most important aspect of the three-phase process. It is at the school level where principals, through regular and ongoing contact, can be very helpful in addressing the two main needs of new teachers: securing resource materials, and finding emotional support and encouragement.

The following strategies have been found effective in welcoming new teachers into a school and in meeting their needs:

- Write a personal note or letter of welcome to the new staff member after they have been hired; invite new teachers to lunch, school performances or other student events, and provide a copy of the school handbook and staff list.
- Arrange access to the school over the summer and remind teachers that the school is open the last week of August.
- Compose a note to each new teacher on the first day of school providing regular communications on school events, orientation events and staff development opportunities.
- Make a complete set of curriculum documents available to new teachers.
- Ease new teachers into curricular materials gradually — the introduction or summary pages will provide a general overview.
- Structure a "buddy" system so that each new teacher is paired with a willing and experienced teacher.
- Ask the experienced teacher to initiate the contact with his or her "buddy".
- Encourage the "buddy" to take the new teacher on a tour of the school and to help find resources.
- Introduce the new staff member to the secretaries and custodians.
- Provide release time where possible to allow the new teacher to visit other classes and to meet the "buddy" to discuss issues, concerns and strategies.
- Invite new teachers to drop in at any time to discuss their questions.
- Ensure that the new teacher is aware of unique features in his or her new school.
- Review the induction program through dialogue with both the new and experienced teachers on an ongoing basis.

### *A Framework for a Successful Induction Program*

***Orientation*** *to familiarize teachers with paperwork and procedures, facilitate relationships, encourage development of knowledge and skills necessary for teaching, and integrate inductees into the culture.*

***Training*** *to assist with instructional methods, curricular requirements, classroom management and assessment of students.*

***Support*** *from a mentor or other individual, via a one-on-one relationship. This attention and support from a veteran teacher can affect new teacher retention, attitudes and instructional strategies. It also provides professional growth opportunities for the mentors.*

***Assessment*** *of inductees to track teaching performance measured against jurisdiction standards.*

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## Resources

**College of Alberta School Superintendents (CASS)**
1200, 9925 – 109 Street
Edmonton, Alberta T5K 2J8
Telephone: (780) 482–7311
Fax: (780) 482–5659
Contact: Dr. Darwin Eckstrom
E-mail: darwineckstrom@pwsb33.ab.ca
http://www.cass.ab.ca

**Alberta Home and School Councils' Association (AHSCA)**
1200, 9925 – 109 Street
Edmonton, Alberta T5K 2J8
Telephone: (780) 454–9867
Fax: (780) 455–0167
Contact: Ms. Jerri Smith
E-mail: jerri_smith@hotmail.com
http://www.ahsca.ab.ca

**University of Calgary**
**Division of Teacher Preparation**
2500 University Drive NW T2N 1N4
Telephone: (403) 220–5632
Fax: (403) 282–8479
Contact: Dr. Bruce Clark
E-mail: bclark@ucalgary.ca
http://www.ucalgary.ca

**Alberta Learning, Professional Development & Certification Branch**
9th Floor Harley Court, 10045 - 111 Street
Edmonton, Alberta T5K 2M5
Telephone: (780) 422–6947
Fax: (780) 422–4199
Contact: Mr. Fred Burghardt
E-mail: Fred.Burghardt@gov.ab.ca
http://www.learning.gov.ab.ca

**Alberta Teachers' Association (ATA)**
11010 – 142 Street
Edmonton, Alberta T5N 2R1
Telephone: (780) 447–9497
Fax: (780) 455–6481
Contact: Mr. Earl Hjelter
E-mail: ehjelter@teachers.ab.ca
http://www.teachers.ab.ca

**Alberta School Boards Association (ASBA)**
1200, 9925 – 109 Street
Edmonton, Alberta T5K 2J8
Telephone: (780) 482–7311
Fax: (780) 482–5659
Contact: Mr. Mac McDonald
E-mail: mmcdonald@asba.ab.ca
http://www.asba.ab.ca

**Association of School Business Officials of Alberta (ASBOA)**
c/o Buffalo Trail Regional School Division No. 28
1041 – 10A Street, Wainwright, Alberta T9W 2R4
Telephone: (780) 842–6144
Fax: (780) 842–3255
Contact: Mr. Vince Rodgers
E-mail: vincrodg@btrd.ab.ca
http://www.asboa.ab.ca

## A Checklist for Teacher Recruitment and Retention

### Recruiting Teachers

1. Assemble team. ❑
2. Collect data on projected needs. ❑
3. Assess traditional sources; identify new sources. ❑
4. Make decisions on changes needed. ❑
5. Evaluate readiness, decide which programs to keep, enhance or initiate. ❑

### Attracting Teachers

1. What does your jurisdiction have to offer? ❑
2. Collect real-life examples; e.g. quotes, profiles, videos. ❑
3. Communicate excitement. Involve practicing teachers. ❑
4. Make your materials appealing. ❑

### Retaining Teachers

#### Induction Program

**Orientation** to familiarize teachers with paperwork and procedures, facilitate relationships, encourage development of knowledge and skills necessary for teaching, and integrate inductees into the culture. ❑

**Training** to assist with instructional methods, curricular requirements, classroom management and assessment of students. ❑

**Support** from a mentor or other individual, via a one-on-one relationship. This attention and support from a veteran teacher can affect new teacher retention, attitudes and instructional strategies. It also provides professional growth opportunities for the mentors. ❑

**Assessment** of inductees to track teaching performance measured against jurisdiction standards. ❑

**This document is also available on the College of Alberta School Superintendents (CASS) Web site**
http://www.cass.ab.ca

**This document is intended primarily for:**
Administrators
Stakeholders

**Appendix 2**
**Committee Membership**

## Advisory Committee on Teacher Supply and Demand

Ms. Nancy Stewart
Alberta Learning (Chair)

Ms. Sandy Bellan
Alberta Learning

Dr. Dave Beresh, Superintendent of Schools
Medicine Hat School District No. 76

Mr. Brian Bickley, Labour relations Manager
Syncrude Canada Ltd.

Mr. Fred Burghardt
Alberta Learning

Dr. Bruce Clark, Associate Dean
Division of Teacher Preparation
Faculty of Education, University of Calgary

Dr. Maryanne Doherty-Poirier
Associate Dean (Teacher Education)
Undergraduate Student Services Office
Faculty of Education, University of Alberta

Mr. Mark Douglas
Alberta Learning

Mr. Terry Gunderson, Consultant
Alberta School Boards Association

Mr. Marv Hackman
Alberta Teachers' Association

Mr. Ed Kozakewich
Alberta Learning

Mr. Stephen Kushner, President
Merit Contractors Association

Ms. Heidi Schreiner
Alberta Home and School Councils' Association

Ms. Deborah Williams
Alberta Learning

**Appendix 3**

**Report #1 – Estimate of Aggregate Supply and Demand for Teachers in Alberta: 2001-2010**

# REPORT # 1

## Estimate of Aggregate Supply and Demand for Teachers in Alberta

## 2001- 2010

Submitted to

**Alberta Learning**

by

**Nichols Applied Management**
**Management and Economic Consultants**
**Edmonton, AB**

January, 2002

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## APPENDICES


A. Students by Age 1996/97 to 2000/01 -- Alberta

B. Population by Age 1996 to 2000 -- Alberta

C. Estimates of Number of Students in the School System -- Alberta

D. Estimates of Supply and Demand for Teachers in Alberta (to 2010)

E. Population Growth - 19 to 25 Year Age Group (Medium Growth Scenario) -- Alberta

# 1. INTRODUCTION

It is generally recognized that a significant percentage of teachers will become eligible for retirement over the coming ten years and that this may reduce the supply of teachers. At the same time there may also be a decline in the number of students in Alberta's K-12 school system as the "baby boom echo" moves through the school system. The combined effects of these and other factors have not been fully examined in the context of the Alberta education system. In order to allow for effective planning for the coming decade, Alberta Learning is interested in an independent estimate of supply and demand for teachers in Alberta over the next 10 years. Specifically this research involves:

- developing a province-wide model to examine, at an aggregate level, both the supply and demand for teachers between 2001 and 2010; and

- a survey of all school superintendents to complement the supply/demand forecasts by examining regional supply/demand issues and the market for teachers of specific subject areas that are anticipated by school superintendents over the next decade.

Nichols Applied Management has been asked to undertake the assignment. This report presents the consultant's findings with regard to the initial component of the research -- a forecast of the province-wide aggregate supply and demand for teachers between 2001 and 2010.

The following section, section two, describes the analysis undertaken to estimate the future demand for teachers based on anticipated changes in the population of school-aged children. Section three presents estimates of the supply of teachers over the next 10 years. Section four combines the supply and demand estimates to identify the combined impacts of forecasted teacher supply and demand in the coming years.

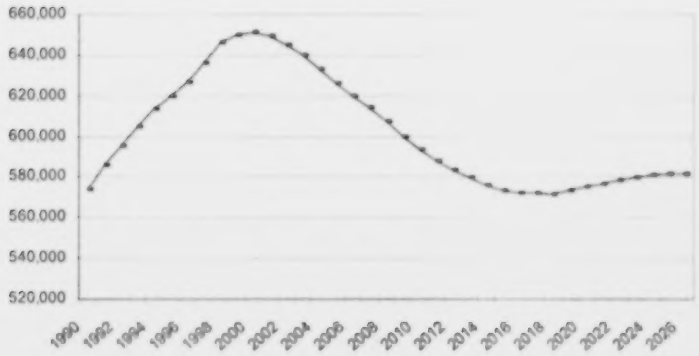
## 2. DEMAND FOR TEACHERS

Demand for teachers is driven for the most part by the population of school-aged children. As the population of school-aged children rises and falls, the demand for teachers rises and falls accordingly. The model developed for estimating demand for teachers allows for the examination of demand forecasts under a variety of population growth assumptions. Statistics Canada reports a continuous increase in the school-aged population (4 to 18) over the 1990s, and is predicting a constant decline throughout the first 17 or so years of the new millenium. Statistics Canada estimates are presented as Figure 1.

**FIGURE 1**

**Historical and Projected School-Aged Population (4-18)**

**Alberta, 1990 - 2026**




SOURCE: Statistics Canada, Demographic Division.
Projections are based on medium growth assumptions on fertility, mortality and migration.

To a lesser degree, participation rates in the school system also play a role in influencing the changes in the demand for teachers. Participation rates have increased marginally over the past five years. Between 1997 and 2000 the participation rate for all individuals aged 4 to 19 inclusive increased from 82.2% to 83.6%. Virtually all children between the ages of 5 and 15 participate in the school system.

In calculating the participation rate in schools, the consultants utilized age by grade counts provided by Alberta Learning for the years 1996/97 to 2000/01 inclusive. These data provide the number of students by age as of September 1 in each grade. They are summarized in Appendix A.

The number of students in school were divided by the number of children in each age cohort as estimated by Statistics Canada (Appendix B). Some minor anomalies occur as a result of this process as the age reported by Statistics Canada is the age as of June 30 and the Alberta Learning data present ages as of September 1 of each year.

Using these age-by-grade data and population estimates and averaging them over the five years for which information was available, the consultants developed estimates of participation in the school system by age in each year. A review of these participation rates indicated a small increase over time as indicated in Table 1.

**TABLE 1**

**Participation Rates in Public Schooling by Age[1]**

| Age | 1996/97 | 1997/98 | 1998/99 | 1999/2000 | Average[2] | Adjusted[3] |
|---|---|---|---|---|---|---|
| 4 or 5 | 66.4% | 67.7% | 67.1% | 67.4% | 67.1% | 68.3% |
| 6 | 97.6% | 98.5% | 98.6% | 98.6% | 98.3% | 100.0% |
| 7 | 99.9% | 98.5% | 99.1% | 99.2% | 99.2% | 100.0% |
| 8 | 98.4% | 100.7%[1] | 98.8% | 99.4% | 99.3% | 100.0% |
| 9 | 98.8% | 99.1% | 100.9% | 99.3% | 99.5% | 100.0% |
| 10 | 98.8% | 99.5% | 99.3% | 101.3% | 99.7% | 100.0% |
| 11 | 98.9% | 99.5% | 99.8% | 99.7% | 99.5% | 100.0% |
| 12 | 98.3% | 99.6% | 99.7% | 100.2% | 99.5% | 100.0% |
| 13 | 99.9% | 98.6% | 99.6% | 99.9% | 99.5% | 100.0% |
| 14 | 99.1% | 100.0% | 98.4% | 99.7% | 99.3% | 100.0% |
| 15 | 96.5% | 97.8% | 98.2% | 97.1% | 97.4% | 99.1% |
| 16 | 93.2% | 94.2% | 95.1% | 96.1% | 94.6% | 96.2% |
| 17 | 74.0% | 72.9% | 73.2% | 75.1% | 73.8% | 75.0% |
| 18 | 27.9% | 26.6% | 25.6% | 26.5% | 26.7% | 27.1% |
| 19 | 9.2% | 9.4% | 9.3% | 9.6% | 9.4% | 9.5% |
| >19 | 1.8% | 1.7% | 1.5% | 1.5% | 1.6% | 1.6% |
| | 1259% | 1264% | 1264% | 1271% | 1264% | 1277% |

1. Some statistical anomalies occur when Statistics Canada using ages as of June 1 and Alberta Learning using ages as of September 1 are combined.
2. Simple average of the previous four years of data.
3. Adjusted upward by 1.7% to a maximum of 100% -- the number required so that participation rates multiplied by Statistics Canada population estimates for June 2000 equaled the actual number of students as of September, 2000 as reported by Alberta Learning.

In establishing the participation rates to be used, the consultants increased the participation rates by 1.7% to a maximum of 100% for

each age group. The need for an adjustment was indicated by the trend over the four years of increased participation in the school system. The amount of the adjustment was determined by finding the level of a percentage increase necessary so that participation rates times Statistics Canada June 2000 population estimates was equal to the number of students Alberta Learning reported as of September 2000.

Applying participation rates to Statistics Canada estimates of future population provides us with estimates of the number of students in the K-12 system. These estimates based on Statistics Canada's "medium-to-high growth" population forecast are presented in Table 2. Appendix C provides estimates under assumptions of "medium" growth and "high" growth. The annual growth rates for the Alberta population as a whole that are implied by the terms "medium growth", "medium-to-high growth" and "high growth" are 0.9%, 1.2% and 1.4% respectively.[1]

**TABLE 2**

**Estimate of Number of Students**

*(medium-to-high population growth assumption)*

| School Year | Total Students | <19 yrs of age | 19+ |
|---|---|---|---|
| 2001/02 | 590,892 | 582,777 | 8,115 |
| 2002/03 | 588,562 | 580,387 | 8,175 |
| 2003/04 | 585,936 | 577,657 | 8,280 |
| 2004/05 | 582,046 | 573,649 | 8,398 |
| 2005/06 | 578,233 | 569,710 | 8,523 |
| 2006/07 | 573,974 | 565,345 | 8,630 |
| 2007/08 | 569,457 | 560,752 | 8,705 |
| 2008/09 | 564,255 | 555,478 | 8,777 |
| 2009/10 | 559,790 | 550,918 | 8,872 |
| 2010/11 | 555,935 | 546,962 | 8,973 |

Finally, the demand for teachers based on student counts can be estimated by applying a student-teacher ratio to the estimated number of students in future years. In 1999/2000 the student/teacher ratio was 18.37 and in 2000/01 it was 18.27. This ratio excludes all qualified teachers who are in administrative positions. This research was interested in anticipating the demand for all teachers and so there is a need to adjust for teachers in non-teaching positions. Historically 12.15% of qualified teachers working within the school system have not

[1] Over the period 2000 to 2010.

worked in teaching positions. The consultants used this factor and an assumed 18.27 student/teacher ratio to project future teacher demand.

Based on a medium-to-high growth scenario and a continuance of the recent student-teacher ratio, the consultants estimate a decline in the demand for teachers of over 6% between 2000/01 and 2010/11.

Table 3 presents other estimates of changes in teacher demand based on alternative population growth assumptions.

**TABLE 3**

**Estimate of Change in Teacher Demand from 2000 to 2010**

*(alternative population growth scenarios[2])*

| Student/Teacher Ratio | Medium Growth | Medium to High Growth | High Growth |
|---|---|---|---|
| 18.27[1] | -9.4% | -6.2% | -3.8% |

1. 2000/01 actual student/teacher ratio.

2. Medium growth scenario reflects an average annual growth rate of 0.9% over the time period while the medium-to-high scenario reflects 1.2% average annual growth and the high growth rate assumes 1.4%.

## 3. SUPPLY OF TEACHERS

Figure 2 presents a conceptual picture of the model used to estimate the future supply of teachers. It shows that the supply of teachers for any given year is fed from four sources. These are:

- active teachers in the previous year. We know that the propensities for active teachers to continue in the profession change by age. Teachers may not continue as teachers for a number of reasons including temporary leave, interests in pursuing other careers, retirement or death;
- new Bachelor of Education graduates. For the purposes of this model we have estimated new Bachelor of Education graduates entering the teaching profession based on the number reported by Alberta's degree-granting institutions, less a factor to reflect that not all graduates end up teaching;
- teachers who move to Alberta from other provinces and other countries to become Alberta teachers; and
- qualified and experienced teachers who return to the profession after a period of absence from the profession.

Alberta Learning provided the consultants with summary data to assist in the estimation of each of these parameters. In establishing the number of teachers leaving the profession, the consultants were able to empirically determine from past history the propensity of teachers to continue in the profession the following year. In 1999/2000 approximately 1,400 teachers under the age of 54 and 800 teachers 54 years and older left the profession. These departing teachers were subtracted from the overall pool of active teachers in each year of the model. The age profile of those leaving the profession (for three years or more) is presented in Figure 3.

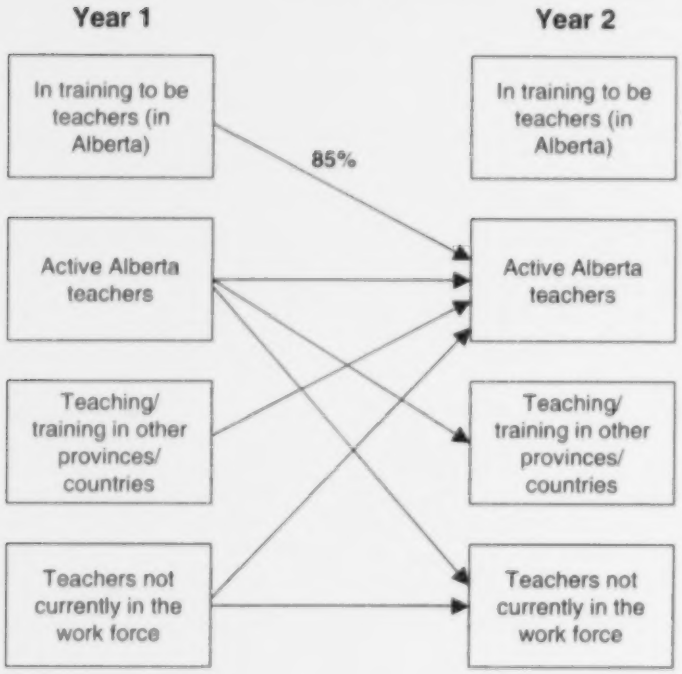
Newly trained teachers in Alberta in any given year were determined by counting the number of Bachelor of Education graduates from Alberta's degree-granting institutions. It is recognized that some of these

graduating teachers will leave the province upon completion of their training and will not become Alberta teachers.[2]

As well, some qualified teachers may decide to pursue other career goals. A study conducted by Alberta Learning in 2000[3] found that about 15% of qualified graduates were not in related occupations two years after graduation. Our estimate of the number of new teachers was therefore adjusted by that amount to reflect the fact that not all teachers completing their education degree continue into teaching.

**FIGURE 2**

**Forecasting Model**


Year 1
Year 2
In training to be teachers (in Alberta)
85%
In training to be teachers (in Alberta)
Active Alberta teachers
Active Alberta teachers
Teaching/ training in other provinces/ countries
Teaching/ training in other provinces/ countries
Teachers not currently in the work force
Teachers not currently in the work force

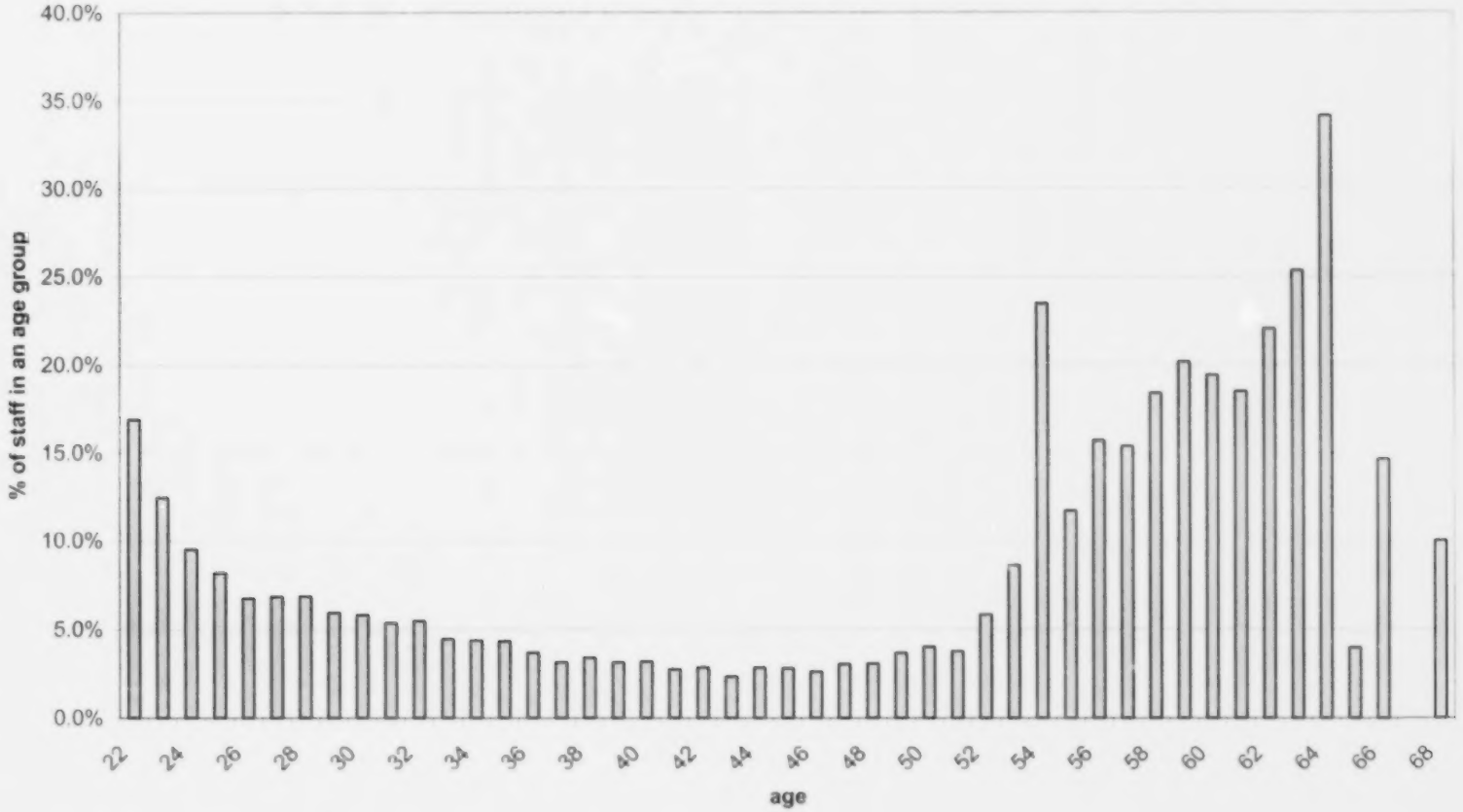
[2] This issue is addressed in the calculation of "arrivals" which is net of departures of qualified teachers.

[3] Alberta Learning and Alberta's Universities and University Colleges, *Labour Market and Education Experiences of 1998 Graduates - Results from the 2000 Alberta Universities and University Colleges Graduate Employment Survey*, 2000.

**FIGURE 3**

**Proportion of Age Cohort Leaving the Profession[1]**

**(for at least 3 years)**




SOURCE: Data provided by Alberta Learning.

In projecting the number of new teachers, the consultants took the age profile of Bachelor of Education graduates reported by Alberta's degree-granting institutions net of the 15% who will not enter the profession. Each estimated number of graduates by age was then divided by the Alberta population in that age group to yield a propensity by age to enter the teaching profession. For example, we found that 0.69% of 22 year olds will become teachers in any given year (see Figure 4). These factors were then multiplied by Statistics Canada forecasts of population by age and summed in order to provide estimates of the number of graduating teachers in future years. Table 4 provides these estimates for the period 2001/02 to 2010/11 assuming medium-to-high population growth. Under this scenario, it is estimated that the number of graduates who will teach will grow by about 10% over the time period of this analysis. This projected increase in the number of Bachelor of Education graduates is simply a reflection of the population growth in the 19 to 25 year old age cohort.[4]

**TABLE 4**

**Estimate of Number of Graduating Teachers Who Will Teach**

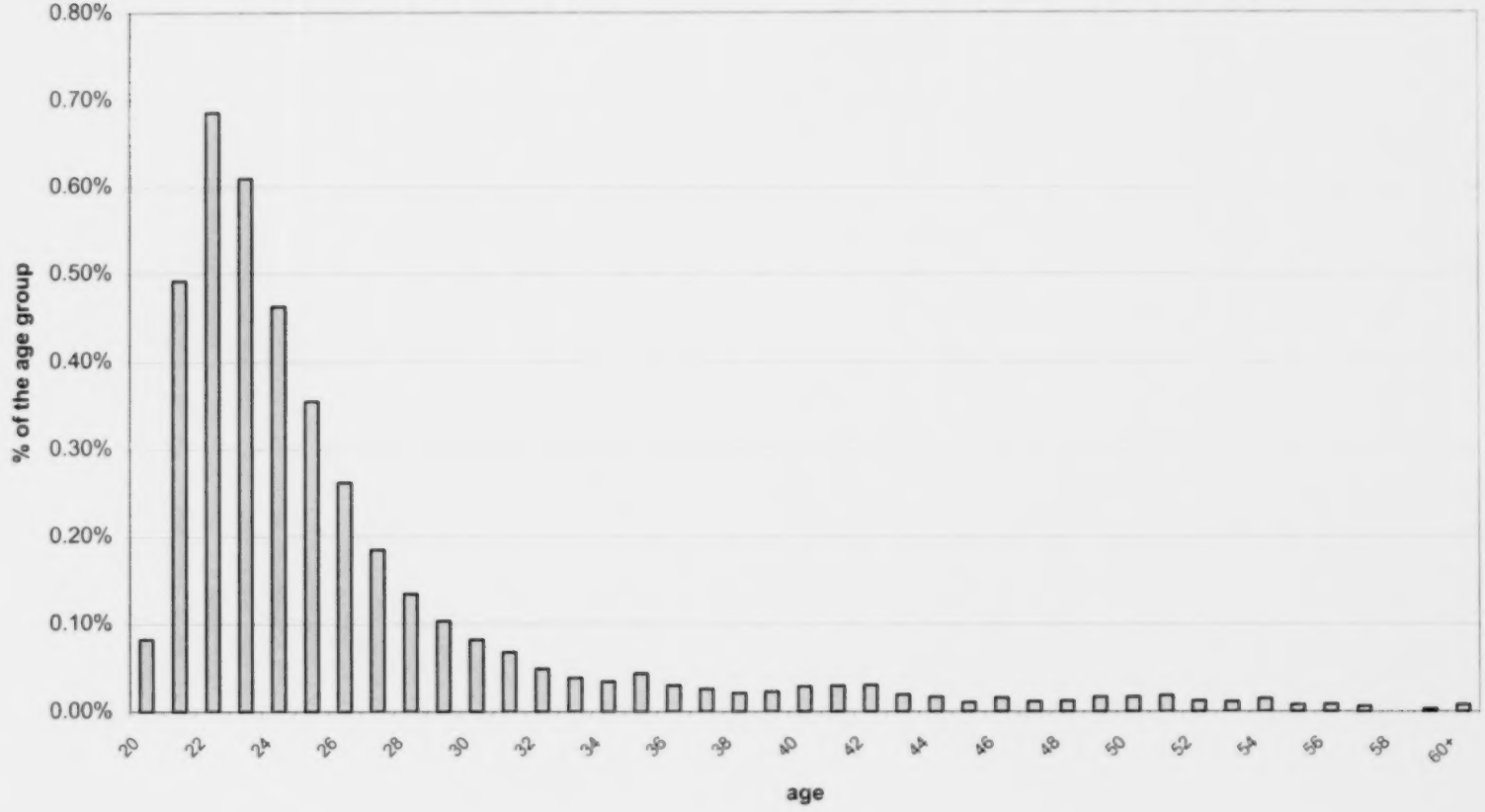
*(medium-to-high population growth assumption)*

| | # of Qualified Teachers | |
|---|---|---|
| | **Who will Graduate** | **Who will Teach** |
| 2001/02 | 2,175 | 1,849 |
| 2002/03 | 2,198 | 1,868 |
| 2003/04 | 2,225 | 1,891 |
| 2004/05 | 2,256 | 1,918 |
| 2005/06 | 2,290 | 1,946 |
| 2006/07 | 2,320 | 1,972 |
| 2007/08 | 2,361 | 2,007 |
| 2008/09 | 2,372 | 2,016 |
| 2009/10 | 2,385 | 2,027 |
| 2010/11 | 2,406 | 2,045 |

[4] See Appendix E, Population Growth - 19-25 Year Age Group (Medium Growth Scenario) -- Alberta.

**FIGURE 4**

**Age Profile of New Graduates**



Teachers returning to the profession after an interruption of service and those arriving from other provinces or countries could not be determined directly from empirical data. Rather the sum of these numbers was calculated by:

- taking the number of teachers in a given year;
- subtracting the number of new Bachelor of Education graduates in that year's contingent of teachers; and
- subtracting the number of returning teachers from the previous year.

The number of teachers as calculated in this manner are new to the system in a given year but did not graduate from an Alberta institution in the previous year. The number of teachers returning to the profession combined with those arriving from other provinces or countries in recent years is presented in Table 5. Based on these historical propensities to attract qualified teachers to the profession in Alberta, the consultants developed estimates for that potential in future years. It is likely that the ability to attract teachers to the profession from outside of the province are enhanced when the Alberta economy is doing well. Similarly, high population growth is associated with a strong economy as in-migration is higher. The consultants concluded that the ability to attract teachers to the province (other things being equal) would be higher under scenarios where there is higher growth in population.

As a result, the consultants developed three assumptions regarding the attractiveness of the profession in Alberta reflecting a range of options consistent with the theory that ability to attract other teachers to the profession is enhanced in higher-growth population scenarios. These assumed ability to attract other teachers to the profession is presented in Table 5 as well.

Key to the applicability of these assumptions is the maintenance of the relative attractiveness of the teaching profession in Alberta. If teaching in Alberta becomes less attractive relative to other provinces and other competing career options than it has been in the past, historic levels of attraction of qualified teachers will not be possible. Factors such as compensation packages and taxation rates will play a role in determining the relative attractiveness of teaching in Alberta and

undoubtedly will contribute to the number of teachers entering the province or re-entering the profession.

**TABLE 5**

**Other Teachers Entering the Profession by Year[1]**

| School Year | # of Entering Teachers *(excl Alberta Graduates)* |
|---|---|
| 1993/94 | -54 |
| 1994/95 | 490 |
| 1995/96 | 1,067 |
| 1996/97 | 671 |
| 1997/98 | 1,062 |
| 1998/99 | 434 |
| **Medium Growth Assumption** (average 93/94 to 98/99) | 612 |
| **Medium-to-High Growth Assumption** (average excluding lowest year) | 745 |
| **High Growth Assumption** (average highest three years) | 933 |

1. Includes qualified teachers from other provinces as well as Alberta teachers returning to the profession after a period of absence.

This analysis also assumes that historical propensities to leave the profession by age will continue in the future. The propensity to leave the profession increases every year above age 46. Given the number of baby boomers who teach, one would expect an increase in the number of teachers leaving the profession each year over time. Implied in this assumption is an expectation that there will be no substantive change to pension or compensation plans, or other terms of employment to alter the propensities of teachers to retire from the profession.

Based on these assumptions, the consultants developed a model to predict the future supply of teachers. Table 6 presents the results of this model under the assumptions discussed earlier with regard to the re-entry of experienced teachers into the profession and the in-migration of teachers from other provinces or countries -- termed for the purposes of this analysis as "Other Entrants to the Profession". This table shows that under the most pessimistic of the scenarios considered in this analysis there will be no decline in the number of teachers between 2001/02 and 2010/11.

## TABLE 6

### Projected Changes in Teacher Supply

*(rounded)*

### Scenario 1: medium population growth scenario

| | 2001/02 | 2002/03 | 2003/04 | 2004/05 | 2005/06 | 2006/07 | 2007/08 | 2008/09 | 2009/10 | 2010/11 |
|---|---|---|---|---|---|---|---|---|---|---|
| Staff | 37,100 | 37,200 | 37,200 | 37,300 | 37,300 | 37,200 | 37,200 | 37,200 | 37,200 | 37,100 |
| Staff Leaving -- under 54 | 1,400 | 1,400 | 1,500 | 1,500 | 1,500 | 1,500 | 1,500 | 1,500 | 1,500 | - |
| Staff Leaving -- 54+ | 900 | 1,000 | 1,000 | 1,100 | 1,100 | 1,100 | 1,100 | 1,100 | 1,100 | - |
| Carryover | 34,700 | 34,800 | 34,800 | 34,700 | 34,700 | 34,700 | 34,600 | 34,600 | 34,600 | - |
| Graduates Entering Profession | 1,800 | 1,900 | 1,900 | 1,900 | 1,900 | 1,900 | 1,900 | 2,000 | 2,000 | - |
| Other Entrants to Profession | 600 | 600 | 600 | 600 | 600 | 600 | 600 | 600 | 600 | - |

**Change in Supply over Time Period 2001/02 to 2010/11 0%**

### Scenario 2: medium-to-high population growth scenario

| | 2001/02 | 2002/03 | 2003/04 | 2004/05 | 2005/06 | 2006/07 | 2007/08 | 2008/09 | 2009/10 | 2010/11 |
|---|---|---|---|---|---|---|---|---|---|---|
| Staff | 37,200 | 37,400 | 37,600 | 37,800 | 37,900 | 38,000 | 38,100 | 38,200 | 38,300 | 38,400 |
| Staff Leaving -- under 54 | 1,400 | 1,500 | 1,500 | 1,500 | 1,500 | 1,500 | 1,500 | 1,500 | 1,500 | - |
| Staff Leaving -- 54+ | 900 | 1,000 | 1,000 | 1,100 | 1,100 | 1,100 | 1,100 | 1,100 | 1,100 | - |
| Carryover | 34,900 | 35,000 | 35,100 | 35,200 | 35,300 | 35,400 | 35,500 | 35,600 | 35,700 | - |
| Graduates Entering Profession | 1,800 | 1,900 | 1,900 | 1,900 | 1,900 | 2,000 | 2,000 | 2,000 | 2,000 | - |
| Other Entrants to Profession | 700 | 700 | 700 | 700 | 700 | 700 | 700 | 700 | 700 | - |

**Change in Supply over Time Period 2001/02 to 2010/11 3%**

### Scenario 3: high population growth scenario

| | 2001/02 | 2002/03 | 2003/04 | 2004/05 | 2005/06 | 2006/07 | 2007/08 | 2008/09 | 2009/10 | 2010/11 |
|---|---|---|---|---|---|---|---|---|---|---|
| Staff | 37,400 | 37,800 | 38,200 | 38,500 | 38,800 | 39,100 | 39,400 | 39,600 | 39,900 | 40,100 |
| Staff Leaving -- under 54 | 1,400 | 1,500 | 1,500 | 1,500 | 1,500 | 1,600 | 1,600 | 1,600 | 1,600 | - |
| Staff Leaving -- 54+ | 900 | 1,000 | 1,000 | 1,000 | 1,100 | 1,100 | 1,100 | 1,100 | 1,100 | - |
| Carryover | 35,000 | 35,400 | 35,700 | 36,000 | 36,200 | 36,400 | 36,700 | 36,900 | 37,200 | - |
| Graduates Entering Profession | 1,800 | 1,900 | 1,900 | 1,900 | 2,000 | 2,000 | 2,000 | 2,000 | 2,000 | - |
| Other Entrants to Profession | 900 | 900 | 900 | 900 | 900 | 900 | 900 | 900 | 900 | - |

**Change in Supply over Time Period 2001/02 to 2010/11 7%**

# 4. ESTIMATES OF FUTURE TEACHER SUPPLY AND DEMAND

In section two of this report it was predicted that the demand for teachers could drop by between 4% and 9% by 2010/11 depending on population growth rates over the time period.

In section three, the consultants estimated that the number of teachers available could remain steady or grow by as much as 7%, again depending on population growth rates.

As indicated earlier, the accuracy of these estimates will be dependent on the validity of assumptions regarding the relative attractiveness of the teaching profession in Alberta:

- vis-à-vis other professions in terms of attracting students;
- relative to other provinces; and
- relative to other pursuits available to trained teachers.

Estimates of supply and demand are presented together in Table 7 for each of the population growth scenarios. A detailed presentation of the calculations that underlie Table 7 are presented in Appendix D.

In each of the three population growth scenarios examined in this analysis there will be, at least in a theoretical sense, a surplus of teachers in Alberta during the coming decade. In reality, market forces will change how teachers and prospective teachers behave and the surplus of teachers will likely not be experienced to the same degree. As an example, the full potential of in-migration of teachers would not be realized because there will be no teaching jobs available to attract them. As well, predictions of reduced employment opportunities will reduce somewhat the interest in training for teaching as a profession. Ultimately market forces will ensure that equilibrium is maintained between supply and demand. What is clear from this analysis is that the prospect of an overall shortfall of teachers is remote and will not be driven by demographics.

## TABLE 7

### Estimates of Supply and Demand for Teachers in Alberta

*(to 2010)*

***(high population growth scenario)***

| Year | Demand | Supply | Difference |
|---|---|---|---|
| 2001/02 | 36,800 | 37,400 | 600 |
| 2002/03 | 36,700 | 37,800 | 1,100 |
| 2003/04 | 36,500 | 38,200 | 1,700 |
| 2004/05 | 36,300 | 38,500 | 2,200 |
| 2005/06 | 36,200 | 38,800 | 2,600 |
| 2006/07 | 36,000 | 39,100 | 3,100 |
| 2007/08 | 35,900 | 39,400 | 3,500 |
| 2008/09 | 35,700 | 39,600 | 3,900 |
| 2009/10 | 35,600 | 39,900 | 4,300 |
| 2010/11 | 35,500 | 40,100 | 4,600 |

***(medium-to-high population growth scenario)***

| Year | Demand | Supply | Difference |
|---|---|---|---|
| 2001/02 | 36,800 | 37,200 | 400 |
| 2002/03 | 36,700 | 37,400 | 700 |
| 2003/04 | 36,500 | 37,600 | 1,100 |
| 2004/05 | 36,300 | 37,800 | 1,500 |
| 2005/06 | 36,000 | 37,900 | 1,900 |
| 2006/07 | 35,800 | 38,000 | 2,200 |
| 2007/08 | 35,500 | 38,100 | 2,600 |
| 2008/09 | 35,200 | 38,200 | 3,000 |
| 2009/10 | 34,900 | 38,300 | 3,400 |
| 2010/11 | 34,600 | 38,400 | 3,800 |

***(medium population growth scenario)***

| Year | Demand | Supply | Difference |
|---|---|---|---|
| 2001/02 | 36,700 | 37,100 | 400 |
| 2002/03 | 36,500 | 37,200 | 700 |
| 2003/04 | 36,200 | 37,200 | 1,000 |
| 2004/05 | 35,800 | 37,300 | 1,500 |
| 2005/06 | 35,500 | 37,300 | 1,800 |
| 2006/07 | 35,100 | 37,200 | 2,100 |
| 2007/08 | 34,700 | 37,200 | 2,500 |
| 2008/09 | 34,200 | 37,200 | 3,000 |
| 2009/10 | 33,800 | 37,200 | 3,400 |
| 2010/11 | 33,500 | 37,100 | 3,600 |

Source: Nichols Applied Management

# 5. CONCLUSIONS

Over the next ten years two demographic situations will combine to limit the likelihood of an overall teacher shortage in the province. These demographics include:

- a reduction in the population of 4 to 18 year olds; and
- an increase in the number of 19 to 25 year olds.

The children of the baby boom generation (sometimes referred to as the "baby boom echo") are moving through the school system. Historical data show that the numbers of school-aged children have peaked and projections indicate that, for approximately the next two decades, their numbers will decline.

As the "baby boom echo" continues to age, the population of 19 to 25 year olds will increase. This will increase the number of students in universities including faculties of education, increasing in turn the number of Bachelor of Education graduates and the number of qualified teachers.

These demographic changes are predicted to more than offset the higher levels of teacher retirements that are also projected over the coming ten years.

Historically Alberta has used other sources of teachers in addition to the flow of new graduates from Alberta's degree-granting institutions to fill the required number of teaching positions in the province. These two sources have included teachers from out-of-province and qualified teachers who are not teaching but residing in the province. These sources of teachers will continue to be important to ensuring an adequate overall supply of teachers into the future.

The pivotal assumption of this analysis relates to the attractiveness of teaching as a profession. Historically the appeal of the profession has allowed schools and boards to attract teachers from a number of sources and to retain a significant percentage of staff as well. In order for the forecasts presented in this analysis to be realized, there can be no substantive changes to the relative attractiveness of teaching as a profession in Alberta.

## APPENDIX A

## Students by Age 1996/97 to 2000/01 -- Alberta

## APPENDIX A

### TABLE A1

### Students by Age 1996/97 to 2000/01 -- Alberta

| Age | 1996/97 | 1997/98 | 1998/99 | 1999/00 | 2000/01 |
|---|---|---|---|---|---|
| 4 or 5 | 55,894 | 56,327 | 55,348 | 55,335 | 55,717 |
| 6 | 42,719 | 42,289 | 42,419 | 41,368 | 41,136 |
| 7 | 42,829 | 43,578 | 43,151 | 42,982 | 41,936 |
| 8 | 41,266 | 43,569 | 44,270 | 43,541 | 43,433 |
| 9 | 41,969 | 41,926 | 44,202 | 44,702 | 43,963 |
| 10 | 42,591 | 42,609 | 42,518 | 44,599 | 45,180 |
| 11 | 42,490 | 43,238 | 43,216 | 42,882 | 44,982 |
| 12 | 42,115 | 43,149 | 43,810 | 43,615 | 43,285 |
| 13 | 42,376 | 42,625 | 43,693 | 44,172 | 43,889 |
| 14 | 40,994 | 42,866 | 43,128 | 44,042 | 44,369 |
| 15 | 39,531 | 40,957 | 42,757 | 42,934 | 43,865 |
| 16 | 37,249 | 39,128 | 40,516 | 42,331 | 42,491 |
| 17 | 29,016 | 29,725 | 31,108 | 32,521 | 33,738 |
| 18 | 10,843 | 10,677 | 10,725 | 11,476 | 11,376 |
| 19 | 3,617 | 3,730 | 3,866 | 4,117 | 4,411 |
| >19 | 7,965 | 7,667 | 7,375 | 7,172 | 7,808 |
| Total | 563,464 | 574,060 | 582,102 | 587,789 | 591,579 |

## APPENDIX B
## Population by Age 1996-2000 -- Alberta

## APPENDIX B

### TABLE B1

**Population by Age 1996 to 2000 -- Alberta**

| Year | 1996 | 1997 | 1998 | 1999 | 2000 |
|---|---|---|---|---|---|
| 4 and 5 | 84,226 | 83,221 | 82,470 | 82,136 | 81,758 |
| 6 | 43,775 | 42,926 | 43,015 | 41,968 | 41,421 |
| 7 | 42,859 | 44,227 | 43,536 | 43,324 | 42,126 |
| 8 | 41,940 | 43,255 | 44,809 | 43,790 | 43,385 |
| 9 | 42,483 | 42,291 | 43,798 | 45,023 | 43,864 |
| 10 | 43,103 | 42,829 | 42,831 | 44,011 | 45,038 |
| 11 | 42,977 | 43,440 | 43,314 | 43,013 | 44,050 |
| 12 | 42,858 | 43,309 | 43,935 | 43,522 | 43,074 |
| 13 | 42,429 | 43,244 | 43,872 | 44,197 | 43,611 |
| 14 | 41,351 | 42,862 | 43,839 | 44,196 | 44,379 |
| 15 | 40,944 | 41,875 | 43,552 | 44,229 | 44,512 |
| 16 | 39,966 | 41,552 | 42,617 | 44,064 | 44,626 |
| 17 | 39,213 | 40,781 | 42,501 | 43,332 | 44,698 |
| 18 | 38,805 | 40,119 | 41,866 | 43,324 | 43,980 |
| 19 | 39,127 | 39,839 | 41,551 | 42,920 | 44,071 |
| 4 to 19 | 666,056 | 675,770 | 687,506 | 693,049 | 694,593 |
| > 19 (20 to 30) | 454,300 | 462,287 | 477,228 | 487,891 | 494,284 |

Note: The 20 to 30 age group was used as a proxy for the population most likely to be included in the over 19 age grouping.

## APPENDIX C

**Estimates of Number of Students in the School System -- Alberta**

## TABLE C1

### Estimates of Number of Students in the School System -- Alberta

**Medium Population Growth Assumption**

| School Year | Total Students | <19 yrs of age | 19+ |
|---|---|---|---|
| 2001/02 | 589,807 | 581,713 | 8,094 |
| 2002/03 | 585,964 | 577,834 | 8,130 |
| 2003/04 | 581,192 | 572,988 | 8,203 |
| 2004/05 | 575,375 | 567,088 | 8,287 |
| 2005/06 | 569,385 | 561,011 | 8,375 |
| 2006/07 | 563,378 | 554,937 | 8,440 |
| 2007/08 | 556,405 | 547,921 | 8,484 |
| 2008/09 | 549,465 | 540,941 | 8,523 |
| 2009/10 | 542,732 | 534,145 | 8,587 |
| 2010/11 | 536,965 | 528,310 | 8,656 |

**High Population Growth Assumption**

| School Year | Total Students | <19 yrs of age | 19+ |
|---|---|---|---|
| 2001/02 | 591,091 | 582,973 | 8,118 |
| 2002/03 | 588,867 | 580,687 | 8,180 |
| 2003/04 | 586,215 | 577,924 | 8,291 |
| 2004/05 | 582,656 | 574,244 | 8,412 |
| 2005/06 | 580,556 | 572,009 | 8,546 |
| 2006/07 | 578,069 | 569,411 | 8,657 |
| 2007/08 | 575,442 | 566,692 | 8,751 |
| 2008/09 | 572,782 | 563,951 | 8,831 |
| 2009/10 | 571,141 | 562,209 | 8,932 |
| 2010/11 | 570,184 | 561,138 | 9,046 |

## APPENDIX D

## Estimates of Supply and Demand for Teachers in Alberta (to 2010)

## APPENDIX D

## TABLE D1

## Estimates of Supply and Demand for Teachers in Alberta (to 2010)

**High Population Growth**
(rounded estimates)

| | 2001/02 | 2002/03 | 2003/04 | 2004/05 | 2005/06 | 2006/07 | 2007/08 | 2008/09 | 2009/10 | 2010/11 |
|---|---|---|---|---|---|---|---|---|---|---|
| **Supply** | | | | | | | | | | |
| Staff | 37,400 | 37,800 | 38,200 | 38,500 | 38,800 | 39,100 | 39,400 | 39,600 | 39,900 | 40,100 |
| Staff Leaving -- under 54 | 1,400 | 1,500 | 1,500 | 1,500 | 1,500 | 1,600 | 1,600 | 1,600 | 1,600 | |
| Staff Leaving -- 54+ | 900 | 1,000 | 1,000 | 1,000 | 1,100 | 1,100 | 1,100 | 1,100 | 1,100 | |
| Carryover | 35,000 | 35,400 | 35,700 | 36,000 | 36,200 | 36,400 | 36,700 | 36,900 | 37,200 | |
| Alberta Graduates Entering Profession | 1,800 | 1,900 | 1,900 | 1,900 | 2,000 | 2,000 | 2,000 | 2,000 | 2,000 | |
| Other Teachers Entering Profession in Alberta | 900 | 900 | 900 | 900 | 900 | 900 | 900 | 900 | 900 | |
| **Demand** | | | | | | | | | | |
| Population (4-19) | 695,300 | 694,000 | 691,800 | 688,000 | 685,500 | 683,100 | 681,700 | 681,100 | 680,200 | 678,400 |
| Average Participation Rate (4-19) | 84% | 84% | 84% | 83% | 83% | 83% | 83% | 83% | 83% | 83% |
| Students (4-19) | 583,000 | 580,700 | 577,900 | 574,200 | 572,000 | 569,400 | 566,700 | 564,000 | 562,200 | 561,100 |
| Students (>19) | 8,100 | 8,200 | 8,300 | 8,400 | 8,500 | 8,700 | 8,800 | 8,800 | 8,900 | 9,000 |
| Total Students | 591,100 | 588,900 | 586,200 | 582,700 | 580,600 | 578,100 | 575,400 | 572,800 | 571,100 | 570,200 |
| Net Demand (non admin) | 32,400 | 32,200 | 32,100 | 31,900 | 31,800 | 31,600 | 31,500 | 31,400 | 31,300 | 31,200 |
| Teachers for Admin Positions | 4,500 | 4,500 | 4,400 | 4,400 | 4,400 | 4,400 | 4,400 | 4,300 | 4,300 | 4,300 |
| Total Teacher Demand | 36,800 | 36,700 | 36,500 | 36,300 | 36,200 | 36,000 | 35,900 | 35,700 | 35,600 | 35,500 |
| **Difference Between Supply and Demand** | **600** | **1,100** | **1,700** | **2,200** | **2,600** | **3,100** | **3,500** | **3,900** | **4,300** | **4,600** |

1. Staff are Alberta certificated teaching staff. Source: Alberta Learning, Information Access and Reporting.
2. Graduates are Bachelor of Education graduates. Source: Alberta Learning, Information Access and Reporting. The number entering the profession is 85% of graduates, which reflects the historical experience of the number of graduates not in related occupations two years following graduation.
3. "Total Students" is actual student enrolment in 1999/00 and 2000/01 and derived from population projections (from 2001/02 onward). Sources: Alberta Learning, Information Access and Reporting and Statistics Canada, Demographic Division, High Population Growth Projection. (Projection HMHW)
4. Demand is derived by dividing the total number of students by the student/teacher ratio. A constant student/teacher ratio of 18.27 is assumed throughout the entire forecast period.
5. This scenario also assumes high population growth for estimating the number of graduates of new teachers.
6. It also assumes, for the purposes of forecasting "Other Teachers Entering Profession in Alberta", a level equal to that of the average of the highest three years between 1993/94 and 1998/99 (900).
7. Participation rates estimated by Nichols Applied Management based on trends in participation rates over time.
8. Historically, the number of teachers in administrative positions has been 12.15% of the total number of teachers. This factor was used to estimate "Teachers for Admin Positions".
9. "Staff Leaving" estimates are based on historical propensities to leave the profession and not return in the following three years. Source: Alberta Learning, Information Access and Reporting.
10. "Other Teachers Entering Profession in Alberta" is comprised of qualified teachers from out-of-province as well as Alberta teachers re-entering the profession after a period of absence.
11. Some totals may appear not to add exactly due to rounding.

**Medium-to-High Population Growth**
(rounded estimates)

| | 2001/02 | 2002/03 | 2003/04 | 2004/05 | 2005/06 | 2006/07 | 2007/08 | 2008/09 | 2009/10 | 2010/11 |
|---|---|---|---|---|---|---|---|---|---|---|
| **Supply** | | | | | | | | | | |
| Staff | 37,200 | 37,400 | 37,600 | 37,800 | 37,900 | 38,000 | 38,100 | 38,200 | 38,300 | 38,400 |
| Staff Leaving -- under 54 | 1,400 | 1,500 | 1,500 | 1,500 | 1,500 | 1,500 | 1,500 | 1,500 | 1,500 | |
| Staff Leaving -- 54+ | 900 | 1,000 | 1,000 | 1,100 | 1,100 | 1,100 | 1,100 | 1,100 | 1,100 | |
| Carryover | 34,900 | 35,000 | 35,100 | 35,200 | 35,300 | 35,400 | 35,500 | 35,600 | 35,700 | |
| Alberta Graduates Entering Profession | 1,800 | 1,900 | 1,900 | 1,900 | 1,900 | 2,000 | 2,000 | 2,000 | 2,000 | |
| Other Teachers Entering Profession in Alberta | 700 | 700 | 700 | 700 | 700 | 700 | 700 | 700 | 700 | |
| **Demand** | | | | | | | | | | |
| Population (4-19) | 695,100 | 693,700 | 691,500 | 687,400 | 682,500 | 677,800 | 674,200 | 670,800 | 666,900 | 661,900 |
| Average Participation Rate (4-19) | 84% | 84% | 84% | 83% | 83% | 83% | 83% | 83% | 83% | 83% |
| Students (4-19) | 582,800 | 580,400 | 577,700 | 573,600 | 569,700 | 565,300 | 560,800 | 555,500 | 550,900 | 547,000 |
| Students (>19) | 8,100 | 8,200 | 8,300 | 8,400 | 8,500 | 8,600 | 8,700 | 8,800 | 8,900 | 9,000 |
| Total Students | 590,900 | 588,600 | 585,900 | 582,000 | 578,200 | 574,000 | 569,500 | 564,300 | 559,800 | 555,900 |
| Net Demand (non Admin) | 32,300 | 32,200 | 32,100 | 31,900 | 31,600 | 31,400 | 31,200 | 30,900 | 30,600 | 30,400 |
| Teachers for Admin Positions | 4,500 | 4,500 | 4,400 | 4,400 | 4,400 | 4,300 | 4,300 | 4,300 | 4,200 | 4,200 |
| Total Teacher Demand | 36,800 | 36,700 | 36,500 | 36,300 | 36,000 | 35,800 | 35,500 | 35,200 | 34,900 | 34,600 |
| **Difference Between Supply and Demand** | **400** | **700** | **1,100** | **1,500** | **1,900** | **2,200** | **2,600** | **3,000** | **3,400** | **3,800** |

---

1. Staff are Alberta certificated teaching staff. Source: Alberta Learning, Information Access and Reporting.
2. Graduates are Bachelor of Education graduates. Source: Alberta Learning, Information Access and Reporting. The number entering the profession is 85% of graduates, which reflects the historical experience of the number of graduates not in related occupations two years following graduation.
3. "Total Students" is actual student enrolment in 1999/00 and 2000/01 and derived from population projections (from 2001/02 onward). Sources: Alberta Learning, Information Access and Reporting and Statistics Canada, Demographic Division, Medium-to-High Growth Projection. (Projection MMMW)
4. Demand is derived by dividing the total number of students by the student/teacher ratio. A constant student/teacher ratio of 18.27 is assumed throughout the entire forecast period.
5. This scenario also assumes medium-to-high population growth for estimating the number of graduates of new teachers.
6. It also assumes, for the purposes of forecasting "Other Teachers Entering Profession in Alberta", a level equal to that of the average of all years (1993/94 to 1998/99) excluding the results from the lowest year (700).
7. Participation rates estimated by Nichols Applied Management based on trends in participation rates over time.
8. Historically, the number of teachers in administrative positions has been 12.15% of the total number of teachers. This factor was used to estimate "Teachers for Admin Positions".
9. "Staff Leaving" estimates are based on historical propensities to leave the profession and not return in the following three years. Source: Alberta Learning, Information Access and Reporting.
10. "Other Teachers Entering Profession in Alberta" is comprised of qualified teachers from out-of-province as well as Alberta teachers re-entering the profession after a period of absence.
11. Some totals may appear not to add exactly due to rounding.

**Medium Population Growth**
(rounded estimates)

| | 2001/02 | 2002/03 | 2003/04 | 2004/05 | 2005/06 | 2006/07 | 2007/08 | 2008/09 | 2009/10 | 2010/11 |
|---|---|---|---|---|---|---|---|---|---|---|
| **Supply** | | | | | | | | | | |
| Staff | 37,100 | 37,200 | 37,200 | 37,300 | 37,300 | 37,200 | 37,200 | 37,200 | 37,200 | 37,100 |
| Staff Leaving -- under 54 | 1,400 | 1,400 | 1,500 | 1,500 | 1,500 | 1,500 | 1,500 | 1,500 | 1,500 | |
| Staff Leaving -- 54+ | 900 | 1,000 | 1,000 | 1,100 | 1,100 | 1,100 | 1,100 | 1,100 | 1,100 | |
| Carryover | 34,700 | 34,800 | 34,800 | 34,700 | 34,700 | 34,700 | 34,600 | 34,600 | 34,600 | |
| Alberta Graduates Entering Profession | 1,800 | 1,900 | 1,900 | 1,900 | 1,900 | 1,900 | 1,900 | 2,000 | 2,000 | |
| Other Teachers Entering Profession in Alberta | 600 | 600 | 600 | 600 | 600 | 600 | 600 | 600 | 600 | |
| **Demand** | | | | | | | | | | |
| Population (4-19) | 693,900 | 690,600 | 686,000 | 679,600 | 672,300 | 665,600 | 659,100 | 653,600 | 646,900 | 639,700 |
| Average Participation Rate (4-19) | 84% | 84% | 84% | 83% | 83% | 83% | 83% | 83% | 83% | 83% |
| Students (4-19) | 581,700 | 577,800 | 573,000 | 567,100 | 561,000 | 554,900 | 547,900 | 540,900 | 534,100 | 528,300 |
| Students (>19) | 8,100 | 8,100 | 8,200 | 8,300 | 8,400 | 8,400 | 8,500 | 8,500 | 8,600 | 8,700 |
| Total Students | 589,800 | 586,000 | 581,200 | 575,400 | 569,400 | 563,400 | 556,400 | 549,500 | 542,700 | 537,000 |
| Net Demand (non Admin) | 32,300 | 32,100 | 31,800 | 31,500 | 31,200 | 30,800 | 30,500 | 30,100 | 29,700 | 29,400 |
| Teachers for Admin Positions | 4,500 | 4,400 | 4,400 | 4,400 | 4,300 | 4,300 | 4,200 | 4,200 | 4,100 | 4,100 |
| Total Teacher Demand | 36,700 | 36,500 | 36,200 | 35,800 | 35,500 | 35,100 | 34,700 | 34,200 | 33,800 | 33,500 |
| **Difference Between Supply and Demand** | **400** | **700** | **1,000** | **1,500** | **1,800** | **2,100** | **2,500** | **3,000** | **3,400** | **3,600** |

---

1. Staff are Alberta certificated teaching staff. Source: Alberta Learning, Information Access and Reporting.
2. Graduates are Bachelor of Education graduates. Source: Alberta Learning, Information Access and Reporting. The number entering the profession is 85% of graduates, which reflects the historical experience of the number of graduates not in related occupations two years following graduation.
3. "Total Students" is actual student enrolment in 1999/00 and 2000/01 and derived from population projections (from 2001/02 onward). Sources: Alberta Learning, Information Access and Reporting and Statistics Canada, Demographic Division, Medium Growth Projection. (Projection MMMM)
4. Demand is derived by dividing the total number of students by the student/teacher ratio. A constant student/teacher ratio of 18.27 is assumed throughout the entire forecast period.
5. This scenario also assumes medium population growth for estimating the number of graduates of new teachers.
6. It also assumes, for the purposes of forecasting "Other Teachers Entering Profession in Alberta", a level equal to that of the average of all years (1993/94 to 1998/99) (600).
7. Participation rates estimated by Nichols Applied Management based on trends in participation rates over time.
8. Historically, the number of teachers in administrative positions has been 12.15% of the total number of teachers. This factor was used to estimate "Teachers for Admin Positions".
9. "Staff Leaving" estimates are based on historical propensities to leave the profession and not return in the following three years. Source: Alberta Learning, Information Access and Reporting.
10. "Other Teachers Entering Profession in Alberta" is comprised of qualified teachers from out-of-province as well as Alberta teachers re-entering the profession after a period of absence.
11. Some totals may appear not to add exactly due to rounding.

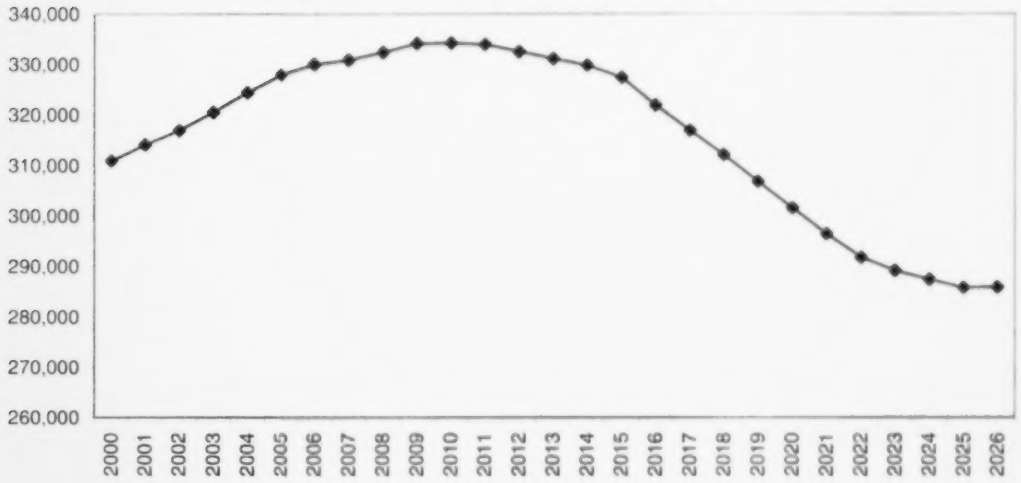
## APPENDIX E

**Population Growth - 19 to 25 Year Age Group**
**(Medium Growth Scenario) -- Alberta**

## APPENDIX E

## TABLE E1

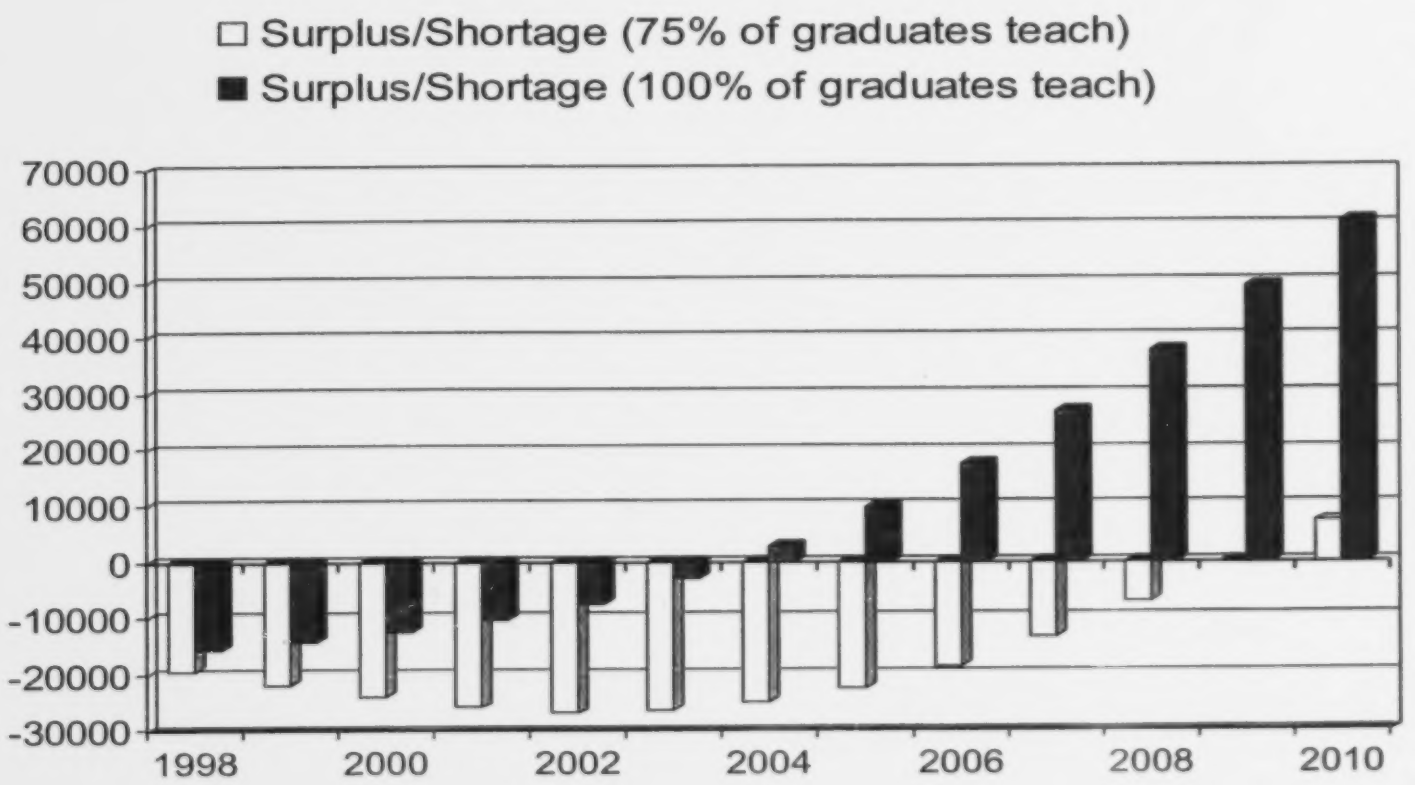
### Population Growth -19 to 25 Year Age Group (Medium Growth Scenario) -- Alberta




SOURCE: Demographic Division, Statistics Canada.
Projections are based on medium growth assumptions on fertility, mortality and migration.

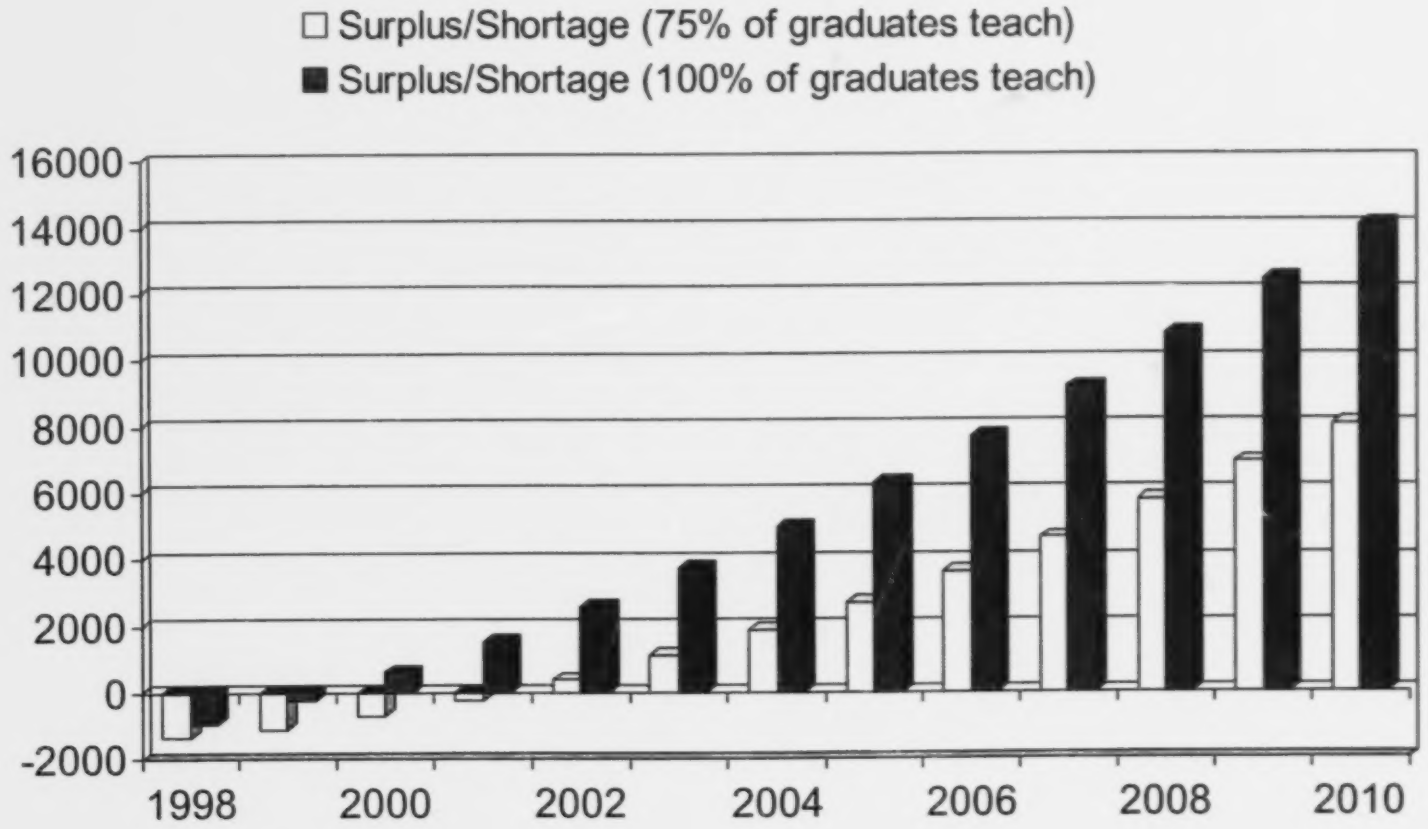
**Appendix 4**
**Statistics Canada Projections – Canada and Alberta**

# Educators in Canada 1998 to 2010 based on to 2 projection scenarios




*Source: Centre for Education Statistics*

# Educators in Alberta 1998 to 2010 based on to 2 projection scenarios




*Source: Centre for Education Statistics*

**Appendix 5**
**Report #2 – Survey Research Results – School Superintendents Survey**

# REPORT # 2

## Survey Research Results

## School Superintendents' Survey

Submitted to

**Alberta Learning**

by

**Nichols Applied Management**
**Management and Economic Consultants**
**Edmonton, AB**

June, 2002

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## APPENDICES


A. Questionnaire with Survey Results

B. Comments Offered Regarding Recruitment and Retention Strategies

# 1. INTRODUCTION

It is generally recognized that a significant percentage of teachers will become eligible for retirement over the coming ten years and that this may reduce the supply of teachers. At the same time projections indicate that there will be a decline in the school-age population. The combined effects of these and other factors have not been fully examined in the context of the Alberta education system. In order to allow for effective planning for the coming decade, Alberta Learning is interested in an independent estimate of supply and demand for teachers in Alberta over the next 10 years. Specifically this research involves:

- developing a province-wide model to examine, at an aggregate level, both the supply and demand for teachers between 2001 and 2010; and

- a survey of all school superintendents to complement the supply/demand forecasts by examining regional supply/demand issues and the market for teachers of specific subject areas that are anticipated by school superintendents over the next decade.

Nichols Applied Management undertook the required research and a report summarizing the findings from the modeling of teacher supply and demand was submitted to the Department in January 2002. This report presents the consultant's findings with regard to the second component of the research -- the findings from the survey of school superintendents.

The following section, section two, describes the survey methodology while section three presents the detailed survey findings. These findings are summarized in section four.

## 2. SURVEY METHODOLOGY

Nichols Applied Management in association with the College of Alberta School Superintendents (CASS) and Alberta Learning designed the questionnaire. A copy of the survey instrument is presented as Appendix A.

The College of Alberta School Superintendents mailed the survey in early April 2002 to the superintendents of all 62 public and separate school jurisdictions in the province together with a covering letter of explanation from Mr. Dave Beresh, a member of CASS. A business reply envelope was included with the survey to facilitate its return.

During the first week of May an e-mail reminder, together with an electronic copy of the survey, was sent to all superintendents who could not be identified as having returned a survey.

In total 40 school jurisdictions (65%) responded to the survey resulting in an accuracy level of ±10 percentage points 19 times out of 20 for questions answered by all respondents. Table 1 presents a profile of the responding jurisdictions.

**TABLE 1**
**Profile of Respondents**

| School Jurisdiction Attributes | Population | N | % Responding |
|---|---|---|---|
| **Size of Jurisdiction:** | | | |
| < 5,000 students | 35 | 20 | 57% |
| 5,000 to 10,000 students | 20 | 11 | 55% |
| 10,000 to 20,000 students | 3 | 2 | 67% |
| 20,000+ students | 4 | 4 | 100% |
| **Setting[3]:** | | | |
| Rural | 48 | 29 | 60% |
| Small Urban[1] | 8 | 4 | 50% |
| Major Urban[2] | 6 | 4 | 67% |
| **CASS Region:** | | | |
| North | 9 | 7 | 78% |
| North Central | 26 | 13 | 50% |
| Central | 7 | 5 | 71% |
| South Central | 10 | 6 | 60% |
| South | 10 | 6 | 60% |
| **Totals** | **62** | **40[4]** | **65%** |

1. Includes school jurisdictions serving Fort McMurray, Grande Prairie, Red Deer, Lethbridge and Medicine Hat.
2. Includes school jurisdictions serving Edmonton, St. Albert and Calgary.
3. Categories developed by the consultants.
4. Surveys were received from three school jurisdictions that did not identify themselves.

# 3. SURVEY RESULTS

The survey questionnaire focused on identifying areas where superintendents believe that they will encounter hiring difficulties and where they believe that they will not encounter hiring difficulties over a number of time frames and for specific subject areas. These time frames included:

- September 2002;
- 2005; and
- 2010.

As well, the survey gathers the perceptions of superintendents regarding:

- factors contributing to the hiring difficulties that they are anticipating;
- effectiveness of a variety of strategies intended to attract and retain teachers; and
- what other strategies would assist in recruiting and retaining teachers.

This section of the report presents the findings from the survey in respect to each of these inquiries.

## 3.1 TEACHING SUBJECT AREAS IN WHICH SHORTAGES/HIRING DIFFICULTIES ARE ANTICIPATED

Respondents were asked to indicate, for 33 teaching subject areas and other categories, the number of teachers they were attempting to hire for September 2002 and the number of teachers they expected to hire for September 2002 in each category. (See Appendix A for a full list of categories and results). Table 2 presents the subject areas in which hiring expectations fall short of the number of teaching positions available in the category. Also indicated in the table are the proportions of respondents anticipating difficulties in hiring teachers in 2005 and 2010 for each of the subject areas. The proportions of respondents anticipating difficulties for 2010 are considerably lower than in 2005,

perhaps because respondents were not comfortable predicting their situation eight years hence.

It is noteworthy that in many subject areas, no hiring difficulties are anticipated. In 2002, for example, respondents indicated that they anticipated no difficulties in hiring teachers in 16 of the 33 subject areas.

## TABLE 2

| Subject Areas with Anticipated Hiring Difficulties for 2002/03 | 2005 | 2010 |
|---|---|---|
| | % of all respondents[1] | |
| Elementary Special Education | 25% | 23% |
| Junior/Senior High Special Education[2] | n/a | n/a |
| Elementary French | 25% | 18% |
| Junior High French | 38% | 35% |
| French Immersion | 45% | 33% |
| Aboriginal Languages | 30% | 20% |
| Junior High Math | 20% | 18% |
| Senior High Pure Math | 63% | 45% |
| Senior High Applied Math | 55% | 48% |
| Junior High Fine Arts | 30% | 25% |
| Senior High Fine Arts | 38% | 30% |
| CTS Technology Education[3] | 65% | 53% |
| CTS Human Ecology[4] | 45% | 35% |
| Counselling | 26% | 18% |
| Vice-Principal | 23% | 20% |
| Aboriginal Teachers | 25% | 23% |
| Hutterite Colony Teachers[2] | n/a | n/a |
| Teachers on Call[2] | n/a | n/a |

1. N=40.
2. These subject/teacher categories were not specifically listed in the survey. However, they were written in by some jurisdictions that do not expect to be able to fill these positions for September 2002. However, because it was not asked specifically, we cannot assign a percentage of school boards to which it is an issue.
3. Includes Design Studies, Communication Technology, Construction Technologies, Electro-Technologies, Fabrication Studies, Logistics, and Mechanics.
4. Includes Career Transitions, Cosmetology Studies, Fashion, Foods, and Community Health.

Table 3 presents additional teaching categories that, while a shortage is not expected for September 2002, a significant proportion of respondents (25 % or more) anticipate difficulties in hiring in 2005.

**TABLE 3**

**Additional Teaching Categories in Which Hiring Difficulties are Anticipated for 2005 and 2010**

| Categories | 2005 | 2010 |
|---|---|---|
| | --- as a % of all respondents[1] --- | |
| Senior High French | 35% | 28% |
| Senior High Physics | 63% | 45% |
| Senior High Chemistry | 55% | 33% |
| Senior High Biology | 38% | 28% |
| CTS Resources[2] | 30% | 23% |
| CTS Business Technology[3] | 28% | 20% |
| Principal | 50% | 38% |

1. N=40.
2. Includes Agriculture, Energy and Mines, Forestry, and Wildlife.
3. Includes Enterprise and Innovation, Financial Management, Management and Marketing, Information Processing, Legal Studies, and Tourism Studies.

Several school jurisdictions commented that they already have in place their teaching staff for 2002 but that they had experienced difficulties hiring a teacher with specific expertise or had settled for a less-than-ideal candidate. As well, some jurisdictions indicated that they expect to hire a teacher for the subject category but will need to settle for a less qualified candidate than desired. Table 4 presents the characteristics of jurisdictions for subject areas in which some jurisdictions either:

- do not expect to fill a position;
- indicated by their comments that they are experiencing or experienced difficulties in hiring for a subject category; or
- indicated by their comments that they are expecting to hire or have hired a teacher that is less qualified than desired for the September 2002/2003 school year.

These jurisdictions tend to be:

- rural;
- have a student population of less than 5,000; and

- located in the North or North Central regions of the province.

Table 5 presents similar information as Table 4, but with respect to the anticipated hiring situation in 2005. Again, rural jurisdictions with a student population of less than 5,000 in the North or North Central regions of the province are most likely to anticipate hiring difficulties for each of the subject categories. Anticipated hiring difficulties however are spread throughout the province and are also expected in many teaching categories by mid-size jurisdictions (5,000 to 20,000 students) and those located in small urban areas.

Major urban area jurisdictions with more than 20,000 students anticipate hiring difficulties for French Immersion, Other Second Languages and, Career and Technology teachers.

## TABLE 4

## Characteristics of Jurisdictions Anticipating Teacher Shortages, have Experienced or are Experiencing Difficulties Filling Teaching Positions for September, 2002

| Subject Area | **Setting:** R=Rural Su=Small Urban Mu=Major Urban Area | **Size:** S= <5000 students M=5,000-20,000 L=>20,000 | **CASS Region:** N=North NC=North Central C=Central SC=South Central S=South |
|---|---|---|---|
| Elementary Special Education | R | S, M | N, NC |
| Jr/Sr High Special Education | R | S, M | NC, SC |
| Elementary French | R | S | N |
| Jr High French | R | S | NC, S |
| French Immersion | R, Su | S, M | N, NC, SC |
| Aboriginal Language | R | S | N |
| Jr High Math | R | S | N |
| Sr High Pure Math | R | S | N, NC, C |
| Sr High Applied Math | R | S | N, NC, C |
| Jr High Fine Arts | R, Su | S, M | N, NC, C |
| Sr High Fine Arts | R | M | NC, C |
| CTS Technology Education | R, Su | S, M | N, NC, C, S |
| CTS Human Ecology | R, Su | S, M | N, NC |
| Counselling | R | S, M | N, NC |
| Vice-Principal | R, Su | S, M | N, NC |
| Aboriginal Teachers | R | S | N |
| Hutterite Colony Teachers | R | M | SC |
| Teachers on Call | Su | M | N |

## TABLE 5

## Characteristics of Jurisdictions Anticipating Hiring Difficulties in 2005 by Teaching Category

| Subject Area | Setting: R=Rural Su=Small urban Mu=Major Urban | Size: S=<5000 students M=5,000-20,000 L=>20,000 | CASS Region: N=North NC=North Central C=Central SC=South Central S=South |
|---|---|---|---|
| Elementary Special Education | Su | | N |
| Elementary Jr/Sr Education | R | M | SC |
| Elementary French | Su | S, M | C, SC, S |
| Jr High French | R, Su | S, M | N, NC, C, S |
| Sr High French | R | S | NC, C, S |
| French Immersion | R, Su, Mu | S, M, L | N, NC, C, SC |
| Aboriginal Language | R, Su | S | N, S |
| Other Second Languages | Mu | L | NC, C |
| Sr High Pure Math | R, Su | S, M | N, NC, C, SC, S |
| Sr High Applied Math | R, Su | S, M | N, NC, C, SC, S |
| Jr High Science | Mu | L | |
| Sr High Physics | R, Su | S, M | N, NC, C, SC, S |
| Sr High Chemistry | R, Su | S, M | N, NC, C, SC, S |
| Sr High Biology | R, Su | S, M | N, NC, C |
| Sr High General Science | Su | | NC, C |
| Jr High Fine Arts | R | M | NC, C, S |
| Sr High Fine Arts | R | S, M | NC, C, S |
| Counselling | R | M | NC, C |
| CTS Technology Education | R, Su, Mu | S, M, L | N, NC, C, S |
| CTS Resources | Su | M | N, C |
| CTS Business Technology | | | N, SC |
| CTS Human Ecology | R, Su | S, M, L | N, NC, C, S |
| Principal | R | S, M | N, NC, C, SC |
| Vice-Principal | | | NC |
| Aboriginal Teacher | Su | S, L | N |

1. At least 50% of jurisdictions with the characteristic that responded for a particular subject category indicated that they anticipated difficulties hiring.

2. The lower number of respondents and the high proportions of respondents indicating "don't know" for 2010, makes it inappropriate to present the 2010 results in this manner.

Respondents were asked what the primary reason was that they anticipated not being able to hire as many teachers as needed for September 2002. The most frequently cited reason was a lack of qualified or trained applicants due to an insufficient number of teachers specializing in the subject category. Some of the rural and north or north central jurisdictions also commented that their hiring difficulties were compounded by a lack of applicants as potential applicants could easily find positions in larger urban centres. Other comments made by respondents, by subject area, as to why they expected that they would not be able to fill all the positions required were:

**Junior High Special Education**:

- Lots of elementary special education teachers but no junior high teachers available.

**Junior High and Senior High Fine Arts**:

- Hard to find band teachers; and
- Shortage of *quality* applicants (music).

**Career and Technology Studies**:

- Competing with private business for employees;
- To date, have been successful in filling positions - however at times we have had considerable difficulty or a very limited pool of candidates;
- Advertised numerous times (for both CTS Technology Education and Human Ecology) - no applicants;
- Have been looking for 3 years!;
- Funding does not let us have specialists;
- Lack of training available for specialization in CTS Technology Education; and
- Location and minimal FTE.

**French Immersion:**

- Establishment of francophone schools has resulted in shortages in the non-francophone school system.

**Other Second Languages:**

- Spanish teachers in demand and hard to find.

**Senior High English:**

- Francophone schools may find it hard to find a qualified English teacher that wants to work in a French environment.

**Vice-Principal:**

- Lack of *quality* candidates; and
- Cancelled competition due to lack of quality candidates.

**Aboriginal Languages:**

- Too few certified Aboriginal language teachers.

**Hutterite Colonies:**

- Shortage of qualified people.

**Substitute Teachers:**

- Severe shortage of available substitute teachers in areas with strong economies and high costs of living (e.g. north region).

Those jurisdictions that anticipate difficulties in hiring teachers in 2005 or 2010 were asked to assess a list of six factors and indicate how significant these factors were in contributing to these difficulties. Table 6 presents this information.

**TABLE 6**

**Potential Reasons for Anticipated Hiring Difficulties in 2005 and 2010**

***(descending order of significance)***

| Reason | Average [1] | % of Respondents indicated factor is Significant or very Significant [2] |
|---|---|---|
| Number of qualified teachers with the required specialization | 3.5 | 87% |
| Characteristics of the community in which the school is located | 2.9 | 69% |
| Relative competitiveness of teacher salaries with industry salaries for individuals with specific specialization | 2.7 | 64% |
| Status accorded to teaching as a profession among suitably qualified individuals | 2.3 | 42% |
| Compensation packages that can be offered | 2.2 | 31% |
| Availability of suitable accommodations in the community in which the school is located | 2.1 | 36% |

1. On a scale of 1 to 4, where 1 is very insignificant and 4 is very significant.
2. "Don't know" responses excluded in calculations.

Analysis of the data found that three of the "potential reasons for anticipating hiring difficulties" varied by school jurisdiction characteristics. These three reasons included:

- characteristics of the community in which the school is located;
- availability of suitable accommodations in the community in which the school is located; and
- compensation packages that can be offered.

Generally, rural jurisdictions with a student population of less than 5,000 located in the north or north central regions of the province found each of these three factors of greater significance in contributing to hiring difficulties than did other jurisdictions. Table 7 presents this information.

## TABLE 7

| | Average Rating[1] |
|---|---|
| **Characteristics of the community in which the school is located:** | |
| Rural | 3.3 |
| Small urban centre | 2.8 |
| Larger urban centre | 1.0 |
| North | 3.9 |
| North Central | 3.2 |
| Central | 2.8 |
| South Central | 1.8 |
| South | 2.6 |
| Less than 5,000 | 3.6 |
| 5,001 to 20,000 | 2.7 |
| More than 20,000 | 1.0 |
| **Availability of suitable accommodations in the community in which the school is located:** | |
| Less than 5,000 | 2.7 |
| 5,000 to 20,000 | 1.5 |
| More than 20,000 | 1.3 |
| North | 3.0 |
| North Central | 2.0 |
| Central | 1.8 |
| South Central | 1.2 |
| South | 2.2 |
| **Compensation packages that can be offered:** | |
| Less than 5,000 | 2.7 |
| 5,000 to 20,000 | 1.6 |
| More than 20,000 | 2.3 |

1. On a scale of 1 to 4, where 1 is very insignificant and 4 is very significant.

## 3.2 STRATEGIES FOR ATTRACTING AND RETAINING TEACHERS

Respondents were asked to rate the effectiveness of a number of strategies that school boards have reported using to assist with attracting and retaining teachers. Table 8 presents the respondents' opinions regarding the effectiveness of the strategies for attracting teachers while Table 9 presents their opinions regarding the effectiveness of strategies in retaining teachers.

## TABLE 8

| Strategy | Average Rating [1] | % of Respondents indicated factor is "significant" or "very significant"[2] |
|---|---|---|
| Ensuring succession planning (supporting teachers in the jurisdiction to develop skills necessary to fill areas of need) | 3.4 | 94% |
| Offering more attractive compensation packages (salary and benefits) | 3.4 | 91% |
| Recruiting on university campuses | 3.3 | 94% |
| Developing brokering programs with Alberta universities to deliver Bachelor of Education degree programs in rural areas | 3.2 | 77% |
| Offering preliminary contracts to exemplary teaching applicants contingent on successful completion of their programs | 3.1 | 83% |
| Marketing/promoting the teaching profession | 3.0 | 80% |
| Increasing advertising in other provinces and countries | 3.0 | 79% |

1. On a scale of 1 to 4, where 1 is very ineffective and 4 is very effective.
2. "Don't know" responses excluded in calculations.

## TABLE 9

### Assessment of the Relative Effectiveness of Various Strategies in Retaining Teachers

***(in Descending Order of Perceived Effectiveness)***

| Strategy | Average Rating [1] | % of Respondents indicated factor is "significant" or "very significant"[2] |
|---|---|---|
| Offering induction/mentorship programs | 3.4 | 94% |
| Offering professional development opportunities | 3.4 | 97% |
| Offering financial incentives to new teachers contingent on service commitment | 3.1 | 85% |

1. On a scale of 1 to 4, where 1 is very ineffective and 4 is very effective.
2. "Don't know" responses excluded in calculations

Respondents were also provided with the opportunity suggest other strategies that government could consider implementing province-wide that would assist in recruiting and retaining teachers. Strategies intended to encourage education students and existing teachers to specialize in subject areas expected to experience shortages were developed from comment made by superintendents. These suggestions include the following:

- differential pay/increased starting salaries in specialists areas;
- bursaries or financial support (tied to teaching for a specified number of years after graduation and grade point average);
- math and science grads with a minimum grade point average- after degree teacher education program with early in-program practicum placements to try out teaching (fully or partially funded);
- promotion of teaching as a valuable and respected profession;
- recruiting of "French" teachers from French speaking countries/provinces; and
- professional development programs in math, sciences, and technology.

Potential strategies that may encourage teachers to consider locating in the North and North Central areas of the province developed from respondents' comments include:

- tax incentives for locating in rural areas;
- University Education Outreach programs at rural colleges: Keyano College, Grande Prairie Regional College. (General education program at community colleges with specialization, i.e., math, sciences, CTS at U of A or U of C - encourage by paying living expenses/transportation expense to take

specialization course - would need to tie to grade point average to ensure "quality" candidates);

- local professional development programs to upgrade rural and northern teachers' skills in math, sciences, technology; and

- funding, i.e., tuition, transportation, living expenses for teachers from rural and/or northern regions to pursue specialization at urban Universities during summer months.

A complete listing of the comments provided to assist in recruiting and retaining teachers is presented in Appendix B.

# 4. CONCLUSIONS

The survey results indicate that there are no perceived shortages anticipated in a wide range of subject areas in the short-term. For example, in September 2002, no hiring difficulties were anticipated for nearly half of the categories assessed. Hiring difficulties were expected to increase in 2005 and 2010. However, whether in 2002, 2005 or 2010, no difficulties were expected in hiring kindergarten teachers or elementary generalists.

Overall, there are specific subject areas in which hiring an adequate supply of teachers may be challenging. These subject areas include senior high math, physics and chemistry, career and technology studies and French immersion. In addition hiring difficulties were also anticipated for principals, vice principals and also for Aboriginal teachers.

Some of the dimensions to these challenges facing public education that have been suggested previously but never fully captured statistically include the following:

- school jurisdictions in the north and north central areas of the province, especially rural ones, are anticipating on-going difficulties attracting an adequate supply of specialists; and

- large urban centres also anticipate hiring challenges in 2005 in the areas of French and other languages and Career and Technology Studies.

Superintendents suggested a number of strategies intended to encourage specialization in hard-to-staff subject areas. These strategies involved

- financial incentives;

- encouraging qualified candidates to try teaching; and

- promoting teaching as a valuable and respected profession.

Potential strategies that may encourage teachers to consider locating in the North and North Central areas of the province developed from respondents include:

- financial incentives; and
- educational and training/retraining strategies.

Another strategy suggested to support school jurisdictions in dealing with staffing issues involved the development of a database in cooperation with school boards. This database would assist in projecting teacher retirements, needs in areas of specialization, available graduates, and would project shortages in advance of their occurrence.

# APPENDIX A

## Questionnaire with Survey Results

## Survey of School Superintendents

The College of Alberta School Superintendents, in conjunction with Alberta Learning and others, is interested in gaining a better understanding of the potential for future imbalances in the market for teachers in specific subjects and in specific regions of the province.

By completing the following survey you will be helping build a better understanding of the future demand for teachers and you will be guiding the development of strategies to address any concerns that might be identified. All individual responses will be held in strictest confidence by Nichols Applied Management -- the consultants retained to gather this information. All results will be presented as group averages only. No individual school jurisdiction will be identified.

If you have any questions about the survey, please contact:

Dave Beresh, Superintendent of Schools
Medicine Hat School District No. 76
(403) 528-6701

Steve Adams
Nichols Applied Management
(780) 424-0091

## Survey of School Superintendents

***Name of School Jurisdiction***:

N = 40

1. Please complete the following table with regard to each of the categories of teachers listed below. Please ensure that your answers regarding the number of teachers you are trying to hire and the number of teachers you are expecting to hire for September 2002 are numerical.

   If you anticipate that you will not be able to hire as many teachers as you are trying to in any of the subject areas below, please indicate the primary reason "why" in the space provided.

| Number of teachers you are trying to hire for Sept. 2002 | Subject Areas | Number of teachers you expect to be able to hire for Sept. 2002 | What is the primary reason you anticipate having difficulties in hiring for this teaching category? |
|---|---|---|---|
| 29 | Kindergarten | 29 | |
| 46 | Elementary Special Education | 37 | (Please see page 8 of report for a summary |
| 169 | Elementary Generalist | 169 | of these comments ) |
| 21 | Elementary French | 20 | |
| 20.33 | Junior High Math | 19 | |
| 33.83 | Senior High Pure Math | 31 | |
| 23.83 | Senior High Applied Math | 21 | |
| 21 | Junior High French | 19 | |
| 12 | Senior High French | 12 | |
| 34 | French Immersion | 29 | |
| 8 | Other Second Languages | 8 | |
| 5 | Aboriginal Languages | 1 | |
| 21.25 | Junior High Science | 21.25 | |
| 12.25 | Senior High Physics | 12.25 | |
| 13.25 | Senior High Chemistry | 13.25 | |
| 11.25 | Senior High Biology | 11.25 | |
| 6 | Senior High General Science | 6 | |
| 18.5 | Counselling | 15.5 | |
| 16.5 | Junior High Social Studies | 16.5 | |
| 10.5 | Senior High Social Studies | 10.5 | |
| 21.5 | Junior High English Language Arts | 21.5 | |
| 17 | Senior High English | 17 | |
| 9 | Junior High Fine Arts (Drama, Art) | 8 | |
| 11.5 | Senior High Fine Arts | 11 | |
| 24 | Physical Education | 24 | |
| | Career and Technology Studies | | |
| 31 | CTS Technology Education (see detail below) | 18 | |
| 0 | CTS Resources (see detail below) | 0 | |
| 5 | CTS Business Technology (see detail below) | 5 | |
| 13 | CTS Human Ecology (see detail below) | 11 | |

| Number of teachers you are trying to hire for Sept. 2002 | Subject Areas | Number of teachers you expect to be able to hire for Sept. 2002 | What is the primary reason you anticipate having difficulties in hiring for this teaching category? |
|---|---|---|---|
| 6 | Other : Music | 5 | |
| 6.5 | Other : JR/SR High Special Education | 3 | |
| 25 | Other : Teachers on call | 10 | |
| 7 | Other : French 1st L anguage | 7 | |
| 1 | Other: Hutterite Colony Teacher | 0 | |
| | **Other Positions** | | |
| 42 | Principal | 42 | |
| 45 | Vice-Principal | 44 | |
| 1 | Aboriginal Teachers | 0 | |
| 3 | Librarian | 3 | |

| | |
|---|---|
| **CTS Technology Education** | Design Studies, Communication Technology, Construction Technologies, Electro-Technologies, Fabrication Studies, Logistics, Mechanics |
| **CTS Resources** | Agriculture, Energy and Mines, Forestry, Wildlife |
| **CTS Business Technology** | Enterprise and Innovation, Financial Management, Management and Marketing, Information Processing, Legal Studies, Tourism Studies |
| **CTS Human Ecology** | Career Transitions, Cosmetology Studies, Fashion, Foods, Community Health |

2. For those same subject areas, please indicate if you anticipate difficulties hiring in 2005 and 2010.

| | 2005 | | | | 2010 | | | |
|---|---|---|---|---|---|---|---|---|
| | Yes | No | DK | Missing | Yes | No | DK | Missing |
| Kindergarten | | 24 (60%) | 4 (10%) | 12 (30%) | | 15 (37.5%) | 10 (25%) | 15 (37.5%) |
| Elementary Special Education | 10 (25%) | 16 (40%) | 4 (10%) | 10 (25%) | 9 (22.5%) | 12 (30%) | 7 (17.5%) | 12 (30%) |
| Elementary Generalist | | 29 (72.5%) | 1 (2.5%) | 10 (25%) | | 20 (50%) | 7 (17.5%) | 13 (32.5%) |
| Elementary French | 10 (25%) | 12 (30%) | 3 (7.5%) | 15 (37.5%) | 7 (17.5%) | 7 (17.5%) | 8 (20%) | 18 (45%) |
| Junior High Math | 8 (20%) | 18 (45%) | 4 (10%) | 10 (25%) | 7 (17.5%) | 5 (12.5%) | 14 (35%) | 14 (35%) |
| Senior High Pure Math | 25 (62.5%) | 5 (12.5%) | 2 (5%) | 8 (20%) | 18 (45%) | | 9 (22.5%) | 13 (32.5%) |
| Senior High Applied Math | 22 (55%) | 7 (17.5%) | 1 (2.5%) | 10 (25%) | 19 (47.5%) | 1 (2.5%) | 7 (17.5%) | 13 (32.5%) |
| Junior High French | 16 (40%) | 10 (25%) | 1 (2.5%) | 13 (32.5%) | 14 (35%) | 4 (10%) | 7 (17.5%) | 15 (37.5%) |
| Senior High French | 14 (35%) | 10 (25.0%) | 3 (7.5%) | 13 (32.5%) | 11 (27.5%) | 4 (10%) | 9 (22.5%) | 16 (40%) |
| French Immersion | 18 (45%) | 6 (15%) | 5 (12.5%) | 11 (27.5%) | 13 (32.5%) | 1 (2.5%) | 10 (25%) | 16 (40%) |
| Other Second Languages | 7 (17.5%) | 6 (15%) | 13 (32.5%) | 14 (35%) | 7 (17.5%) | 1 (2.5%) | 15 (37.5%) | 17 (42.5%) |
| Aboriginal Languages | 12 (30%) | 5 (12.5%) | 10 (25.0%) | 13 (32.5%) | 8 (20%) | 2 (5%) | 14 (35%) | 16 (40%) |

| | 2005 | | | | 2010 | | | |
|---|---|---|---|---|---|---|---|---|
| | Yes | No | DK | Missing | Yes | No | DK | Missing |
| Junior High Science | 4 (10%) | 19 (47.5%) | 4 (10%) | 13 (32.5%) | 7 (17.5%) | 7 (17.5%) | 11 (27.5%) | 15 (37.5%) |
| Senior High Physics | 25 (62.5%) | 4 (10%) | 2 (5%) | 9 (22.5%) | 18 (45%) | 1 (2.5%) | 7 (17.5%) | 14 (35%) |
| Senior High Chemistry | 22 (55%) | 6 (15%) | 2 (5%) | 10 (25%) | 13 (32.5%) | 2 (5%) | 9 (22.5%) | 16 (40%) |
| Senior High Biology | 15 (37.5%) | 10 (25%) | 1 (2.5%) | 14 (35%) | 11 (27.5%) | 4 (10%) | 8 (20%) | 17 (42.5%) |
| Senior High General Science | 2 (5%) | 3 (7.5%) | 4 (10%) | 31 (77.5%) | 2 (5%) | 1 (2.5%) | 8 (27.5%) | 29 (72.5%) |
| Counselling | 10 (25%) | 13 (32.5%) | 4 (10%) | 13 (32.5%) | 7 (17.5%) | 7 (17.5%) | 10 (25%) | 16 (40%) |
| Junior High Social Studies | | 23 (57.5%) | 3 (7.5%) | 14 (35%) | 1 (2.5%) | 15 (37.5%) | 8 (20%) | 16 (40%) |
| Senior High Social Studies | 1 (2.5%) | 22 (55%) | 3 (7.5%) | 14 (35%) | 2 (5%) | 14 (35%) | 8 (20%) | 16 (40%) |
| Junior High English Language Arts | | 24 (60%) | 3 (7.5%) | 13 (32.5%) | 1 (2.5%) | 16 (40%) | 9 (22.5%) | 14 (35%) |
| Senior High English | 1 (2.5%) | 23 (57.5%) | 4 (10%) | 12 (30%) | 2 (5%) | 13 (32.5%) | 11 (27.5%) | 14 (35%) |
| Junior High Fine Arts (Drama, Art) | 12 (30%) | 14 (35%) | 2 (5%) | 12 (30%) | 10 (25%) | 8 (20%) | 7 (17.5%) | 15 (37.5%) |
| Senior High Fine Arts | 15 (37.5%) | 10 (25%) | 1 (2.5%) | 14 (35%) | 12 (30%) | 6 (15%) | 6 (15%) | 16 (40%) |
| Physical Education | 2 (5%) | 23 (57.5%) | 2 (5%) | 13 (32.5%) | 1 (2.5%) | 19 (47.5%) | 5 (12.5%) | 15 (37.5%) |
| Career and Technology Studies | | | | | | | | |
| CTS Technology Education (see detail below) | 26 (65%) | 5 (12.5%) | 2 (5%) | 7 (17.5%) | 21 (52.5 %) | 1 (2.5%) | 8 (20%) | 10 (25%) |
| CTS Resources (see detail below) | 12 (30%) | 11 (27.5%) | 4 (10%) | 13 (32.5%) | 9 (22.5%) | 6 (15%) | 9 (22.5%) | 16 (40%) |
| CTS Business Technology (see detail below) | 11 (27.5%) | 16 (40%) | 2 (5%) | 11 (27.5%) | 8 (20%) | 10 (25%) | 8 (20%) | 14 (35%) |
| CTS Human Ecology (see detail below) | 18 (45%) | 9 (22.5%) | 3 (7.5%) | 10 (25%) | 14 (35%) | 4 (10%) | 7 (17.5%) | 15 (37.5%) |
| Other: Band | 2 (5%) | 1 (2.5%) | 1 (2.5%) | 36 (90%) | 2 (5%) | | 2 (5%) | 36 (90%) |
| Other: JR/SR Special Education/French 1st Language/Hutterite Teacher | 3 (7.5%) | | | 37 (92.5%) | 3 (7.5%) | | | 37 (92.5%) |
| **Other Positions** | | | | | | | | |
| Principal | 20 (50%) | 9 (22.5%) | 3 (7.5%) | 8 (20%) | 15 (37.5%) | 3 (7.5%) | 11 (27.5%) | 11 (27.5%) |
| Vice-Principal | 9 (22.5%) | 18 (45%) | 3 (7.5%) | 10 (25%) | 8 (20%) | 8 (20%) | 10 (25%) | 14 (35%) |
| Librarian | 1 (2.5%) | 11 (27.5%) | 13 (32.5%) | 15 (37.5%) | 2 (5%) | 6 (15%) | 15 (37.5%) | 17 (42.5%) |
| Aboriginal Teachers | 10 (25%) | 5 (12.5%) | 9 (22.5%) | 16 (40%) | 9 (22.5%) | 2 (5%) | 12 (30%) | 17 (42.5%) |

| | |
|---|---|
| **CTS Technology Education** | Design Studies, Communication Technology, Construction Technologies, Electro-Technologies, Fabrication Studies, Logistics, Mechanics |
| **CTS Resources** | Agriculture, Energy and Mines, Forestry, Wildlife |
| **CTS Business Technology** | Enterprise and Innovation, Financial Management, Management and Marketing, Information Processing, Legal Studies, Tourism Studies |
| **CTS Human Ecology** | Career Transitions, Cosmetology Studies, Fashion, Foods, Community Health |

3. If you are anticipating difficulties in hiring teachers in 2005 or 2010, please indicate the degree to which you think each of the following reasons will contribute to those difficulties on the following scale.

| Potential Reasons for Hiring Difficulties in 2005 or 2010 | Very *insignificant* contributor to hiring difficulties | Somewhat insignificant | Somewhat significant | Very *significant* contributor to hiring difficulties | Don't know |
|---|---|---|---|---|---|
| Characteristics of the community in which the school is located as a place to live for a new teacher | 9 (25.0%) | 2 (5.6%) | 9 (25.0%) | 16 (44.4%) | |
| Compensation packages that can be offered | 12 (33.3%) | 13 (33.1%) | 2 (5.6%) | 9 (25.0%) | |
| The number of qualified teachers with the required specialization | 4 (10.8%) | 1 (2.7%) | 4 (10.8%) | 28 (75.7%) | |
| Availability of suitable accommodations in the community in which the school is located | 16 (44.4%) | 7 (19.4%) | 7 (19.4%) | 6 (16.7%) | |
| The status accorded to teaching as a profession among suitably qualified individuals | 10 (27.0%) | 11 (29.7%) | 11 (29.7%) | 4 (10.8%) | 1 (2.7%) |
| The relative competitiveness of teacher salaries with industry salaries for individuals with specific specializations. | 7 (19.4%) | 6 16.7%) | 12 (33.3%) | 11 (30.6%) | |
| Other significant / very significant factors | Lack of teacher programs for CTS; lack of university training; small % of total teaching | | | | |

4. The table below lists some strategies that school boards have reported using to assist with attracting and retaining teachers.

   If you are anticipating difficulty in attracting or retaining an adequate supply of teachers, please indicate how effective you believe each strategy would be in helping address this issue. Beside each of the strategies, please indicate what best describes your view as to the effectiveness of each strategy, where 1 is "very ineffective", 2 is "somewhat ineffective", 3 is "somewhat effective" and 4 is "very effective".

   This is not intended to be a comprehensive list, but rather examples of strategies that could be helpful in the future. If a strategy you believe would be helpful does not appear below, please add it in the space(s) provided, and rate its effectiveness on the same scale.

| Potential Strategy | Very ineffective | Somewhat ineffective | Somewhat effective | Very effective | Don't know |
|---|---|---|---|---|---|
| **Attraction** | | | | | |
| Marketing/promoting the teaching profession | 1 (2.8%) | 6 (16.7%) | 21 (58.3%) | 7 (19.4%) | 1 (2.8%) |
| Increasing advertising in other provinces and other countries | | 7 (19.4%) | 19 (52.8%) | 7 (19.4%) | 3 (8.3%) |
| Offering preliminary contracts to exemplary teaching applicants contingent on successful completion of their programs | 1 (2.8%) | 4 (11.1%) | 15 (41.7%) | 9 (25.0%) | 7 (19.4%) |
| Recruiting on university campuses | | 2 (5.6%) | 19 (52.8%) | 14 (38.9%) | 1 (2.8%) |
| Developing brokering programs with Alberta universities to deliver Bachelor of Education degree programs in rural areas | 1 (2.8%) | 4 (11.1%) | 6 (16.7%) | 11 (30.6%) | 14 (38.9%) |
| Offering more attractive compensation packages (salary and benefits) | 1 (2.8%) | 2 (5.6%) | 14 (38.9%) | 16 (44.4%) | 3 (8.3%) |
| Ensuring succession planning (supporting teachers in the jurisdiction to develop skills necessary to fill areas of need) | 1 (2.8%) | 1 (2.8%) | 16 (44.4%) | 15 (41.7%) | 3 (8.3%) |

| | | | | | |
|---|---|---|---|---|---|
| Other: somewhat effective factors | bursaries | | | | |
| Other: somewhat effective factors | partnerships with private sector | | | | |
| **Retention** | | | | | |
| Offering professional development opportunities | | 1 (3.1%) | 18 (56.3%) | 12 (37.5%) | 1 (3.1%) |
| Offering financial incentives to new teachers contingent on service commitment | 1 (3.0%) | 3 (9.1%) | 15 (45.5%) | 8 (24.2%) | 6 (18.2%) |
| Offering induction/mentorship programs | | 2 (6.3%) | 15 (46.9%) | 15 (46.9%) | |
| Other: somewhat effective factors | wellness/EAP/morale programs | | | | |
| Other _____(please specify) | | | | | |
| Other _____(please specify) | | | | | |

5. We invite you to "think outside the box". Are there other strategies that government could consider implementing province-wide that would assist in recruiting and retaining teachers? Please provide, in order or priority, the top three measures you believe government could consider adopting.

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

Thank you for your time in completing this survey. Please fax your response to Nichols Applied Management (780) 428-7644 or return it in the business reply envelope provided to:

**Nichols Applied Management**
**1100, 10130 - 103 Street**
**Edmonton, Alberta T5J 3N9**

# APPENDIX B

## Comments Offered Regarding Recruitment and Retention Strategies

| **Jurisdiction Characteristics:** Setting # of students Location | **Other strategies that government could consider implementing province-wide that would assist in recruiting and retaining teachers:** |
|---|---|
| Rural <5,000 North | Be more supportive when talking about the contribution that teachers make towards the education of students.<br><br>Use a true consultation plan before making changes to things like funding, curriculum, etc. |
| Rural <5,000 North | Support teaching-profession salaries.<br><br>A more cooperative approach with ATA.<br><br>Funding schools to ensure good working conditions. |
| Rural <5,000 North | Implement a "supported" internship/practicum placement program that would financially encourage new grads/teachers in training to try "the harder to staff" areas.<br><br>Introduce additional tax incentives for graduates to locate outside of the major center and in the north.<br><br>More aggressively support and ensure that the rural areas receive outstanding connectivity/better transportation links (cost as well as quantity). Ensure that our rural areas are not isolated nor that professional residents have to feel isolated. Or pay additional (unreasonable) costs for staying in the area. |
| Rural <5,000 North | Consideration should be given to developing an aboriginal teacher-training program in Alberta. There is a definite need for training people from small northern communities to become teachers, etc., so that they can serve their communities. |
| Rural <5,000 North Central | Eliminate the cap on enrollments for some faculties (university).<br><br>Enable differentiation of salary (outside of collective agreement) for areas that are difficult to hire.<br><br>Enable "special" certification for individuals holding Master Degrees in some areas such as Math and Science to teach in their area of specialization at the high school level. |
| Rural <5,000 North Central | Consider composition of classes. Students with severe special needs in the area of behavior and /or emotional development create "havoc" in classrooms. Segregating these students would greatly improve classroom conditions and allow teachers to teach.<br><br>Compressing the front end of the salary guide to increase starting salaries.<br><br>Consider providing grants to teachers in training programs. |
| Rural 5,000-20,000 North Central | Reduce class size - huge stressor.<br><br>Provide training/support for special needs students included in large classes.<br><br>Fund/treat all public sector groups equally (fairly). |
| Rural 5,000-20,000 North Central | The climate surrounding the teaching profession needs to be cleared up. This requires support actions from government, school boards and the ATA. |
| Rural 5,000-20,000 North Central | Recruitment: Government could assist by working with school boards and/or appropriate organizations, e.g. CASS to develop effective and shared databases of information that would assist in projecting retirements, specialization needs, availability of graduates, etc. This should be done on a cooperative/consortium basis.<br><br>Government in cooperation with boards must look at an effective articling/internship approach that will provide funded programs to initiate beginning teachers into the profession, just as in other professions. These need to be different in approach than previous efforts at internship. |

| | |
|---|---|
| Rural<br>5,000-20,000<br>North Central | I'm not sure that government intervention alone will solve the recruitment issue. Why? Because I believe there is another issue that impacts our ability to "find" and "retain" teachers that I believe must be looked at along side government intervention and that is the ability of a district to find a "quality" teacher to fill available teaching positions. Specifically, in the past few years, our recruitment has brought applications a-plenty and I suspect that will continue. What is becoming increasingly difficult for us is finding quality teachers to fill the available positions.<br><br>Keeping the above in mind, I wouldn't be too quick to draw the conclusion that the reason "quality" teachers are sparse is because teachers are not paid enough. Rather, I am concerned that we may not be doing a good enough job of mentoring our new teachers, of monitoring their progress, of ensuring they have the (illegible) to continue as a teacher, of ensuring they are suited for teaching, that they like working with kids … etc., thus resulting in ineffective teachers being offered continuing contracts when they should be either counseled out of the profession or given the support they need to become effective teachers. If we did a better job of this (and granted some districts may be doing this) teachers would develop the sense of efficacy that would, in the long run, keep them in the profession, and doing a great job. I state the above because I think it needs to be said and met head on as a reality in our profession. Until we do that, I believe little will change.<br><br>That said, to answer your question, I offer the following:<br><br>Give districts dollars for the on-going development of new teachers, i.e. for the development of strong mentorship and support programs for new teachers. This would include dollars in the administrative envelope for someone to coordinate/work with the school level administrators to ensure these programs are effective and being delivered, as intended. Please note that these programs, I believe, must be coordinated at the district/school level and not through consortiums or through the ATA.<br><br>Enough dollars to enable us to give teachers time for collaboration. One of the biggest concerns of teachers, I believe, is not salaries or extra-curricular activities or whatever you want to throw out as a perceived or real concern of teachers. Rather, it is the lack of time for them to collaborate, i.e. to collaborate on issues such as planning, shared best practices, how to meet the learning needs of "all" students and if not what practices do we, can we, must we engage in to make sure that students are successful at learning, etc. What I am talking about here is structured, monitored and meaningful collaboration that centers around helping/ensuring students are learning. It is not our job to teach, it is our job to help students learn and we do that most effectively when we share, talk, plan and act as a learning community ourselves. We need dollars to "free up" teachers to do that.<br><br>Give districts dollars for recruitment purposes. We are a rural jurisdiction. We have an extensive recruitment program and it works for us, but it costs us a fortune!<br><br>a) Give districts the dollars to "buy out" ineffective teachers, b) get rid of the Board of Reference, c) hold us accountable to ensure there is a quality teacher in every classroom in this province, and d) then watch us attract and retain. Young people will be breaking the doors down wanting to get into the profession because they know there are structures in place that will help them do their job well! |
| Rural<br>5,000-20,000<br>Central | Retraining teachers in areas of CTS, industrial arts and home economics strands.<br><br>Mentoring programs among (illegible) staff.<br><br>Increase beginning teacher's salaries. |
| Rural<br>5,000-20,000<br>Central | Short courses specific to areas of need where current teachers are given financial compensation to attend. For example, our jurisdiction offered a course (two weeks long) on strategies and approach for teaching Applied Math 10. A practicing teacher taught it. Teachers who took the course were paid $1000/week (i.e. $2000 total). |
| Rural<br>5,000-20,000<br>South Central | Salaries and benefits need to be comparable to other professions.<br><br>Having part of the practicum on the initial years of post-secondary education to let them explore their interest and let us evaluate their potential.<br><br>Promoting the teaching professional as more of a real profession. |
| Rural<br><5,000<br>South | Bursaries or financial support for certain faculties (math). |

| | |
|---|---|
| Rural<br><5,000<br>South | Partial tuition payments for all specialty areas or for high need areas. This was very effective back in the late 50's and early 60's when there was a severe shortage.<br><br>Bursaries to prospective teachers by school divisions and partially funded by Alberta Learning. This could be especially effective in rural Alberta. There would have to be a cap on financial assistance from province for each school division. Maybe distance/sensitivity? Could be used in establishing baseline support. Shortage will definitely occur first in rural areas, most notably Northlands.<br><br>Partnerships between colleges and universities to fast-track getting trades people through the university system and into the CTS classrooms. E.g. Trades certificate plus two years of university training would enable school division to provide some bursary support for short-term assistance. |
| Small Urban<br><5,000<br>North | We should have questions/recommendations re teachers on call. There is a severe shortage 1) Easing certification procedures (not standards) for non-Alberta teachers. This is a real problem. 2) Letters of Authority to enable teachers on call. Without teaching degrees "supervisors on call?" 3) Fund education adequately so teachers have hope.<br><br>Education funding for students to fast-track through summer months and get out sooner than 4-5 year.<br><br>Reconsideration of foreign teacher regulations.<br><br>Public validation of the teaching profession.<br><br>Cost of living allowances for special areas.<br><br>Taxation authority to boards. |
| Small Urban<br><5,000<br>North | Speak publicly about education as a "valued" professional and encourage others to do the same. |
| Small Urban<br>5,000-20,000<br>Central | Allow for more tax deductions for teachers, i.e. clothes, supplies, etc.<br><br>Show a greater appreciation for the profession. |
| Small Urban<br>5,000-20,000<br>South | Promotion in the media of the value of education/teachers. Recognition of the huge value to society.<br><br>Top up unfunded portion of ATRF now - put a written plan in place so new and experienced teachers are assured of their pensions. There is huge doubt amongst teachers at all levels.<br><br>Address class size with premium dollars - link to the "value" as in point 1. |
| Large urban<br>>20,000<br>S Central | Provide adequate funding for education so that teachers can be adequately compensated for their training and skill set. |
| | The boards which have settled are offering salary grids and compensation packages which are extremely attractive and very competitive. Class sizes in some areas of our high schools may need addressing. If high salaries result in large class sizes the advantage of salary is lost. |

# Appendix 6
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